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

WRITTEN STATEMENT OF THE REPUBLIC OF SINGAPORE

16 JUNE 2023

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CHAPTER 1

INTRODUCTION

1. Climate change is the crisis of our time. It may cause profound consequences on the marine environment and is an existential threat, especially for small island developing States. It is in this context that, on 12 December 2022, the Commission of Small Island States on Climate Change and International Law ("**COSIS**") submitted its request to the International Tribunal for the Law of the Sea ("**Tribunal**") for an advisory opinion on the following questions:

> "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:
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> (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?"[1]

2. On 16 December 2022, the President of the Tribunal issued an order inviting UNCLOS States Parties and a list of intergovernmental organisations to submit written statements on the questions.

3. In this Statement, Singapore sets out some observations on jurisdiction and admissibility (Chapter 2), submits that UNCLOS – in particular, Part XII on the protection and preservation of the marine environment – is applicable to climate change and its impacts

[1] Letter from the Co-Chairs of COSIS to the Registrar of the Tribunal, dated 12 December 2022.

(Chapter 3) and seeks to assist the Tribunal in identifying the relevant obligations of UNCLOS States Parties in response to the two questions submitted by COSIS (Chapters 4 and 5).

4. The first question focuses on the specific obligations to "prevent, reduce and control pollution" which is the term used in various provisions in Part XII. The second question speaks of specific obligations to "protect and preserve the marine environment", which encompasses the prevention, reduction and control of pollution, but extends beyond that. Singapore will focus on the provisions that specifically address the prevention, reduction and control of pollution in its response to the first question, and the other articles of UNCLOS which are pertinent to the protection and preservation of the marine environment in the climate change context in its response to the second question. Across both responses, Singapore will address what it considers the most pertinent provisions in UNCLOS with respect to climate change (namely Articles 192, 194, 197, 198, 200, 201, 202, 207, 212, 213 and 222). Other provisions in UNCLOS that are relevant but less pertinent are not addressed in this Statement.

5. In these submissions, Singapore also takes the view that relevant provisions in Part XII of UNCLOS may be informed by internationally agreed rules and standards set out in other instruments that more specifically pertain to climate change, as well as concepts in international environmental law, in the manner specifically envisioned in the Part XII provisions. At the same time, Singapore underscores the need to ensure faithful adherence to the provisions of UNCLOS and the balance of rights and interests captured in these provisions, when seeking to ascribe specific content to States' obligations.

CHAPTER 2

OBSERVATIONS ON JURISDICTION AND ADMISSIBILITY

6. These proceedings represent the second time that the full Tribunal has been requested to issue an advisory opinion. The Tribunal previously held in *Request for an Advisory Opinion submitted by the Sub-Regional Fisheries Commission*[2] ("***SRFC* Advisory Opinion**") that it possesses advisory jurisdiction to entertain suitable requests for advisory opinions. The Tribunal further held that Article 138(1) of the Rules of the Tribunal ("**Rules**") not only sets out the jurisdictional prerequisites to be satisfied for the Tribunal to exercise advisory jurisdiction, but also provides for the Tribunal's "discretionary power" to refuse to give an advisory opinion even if the conditions of jurisdiction are satisfied. The Tribunal added that "a

[2] *Advisory Opinion, 2 April 2015, ITLOS Reports 2015*, p. 4, at p. 24, para. 69.

request for an advisory opinion should not be in principle refused except for 'compelling reasons'".[3]

7. Singapore does not address the basis of the Tribunal's advisory jurisdiction in these submissions. However, Singapore considers that it would be useful to elaborate on the following principles regarding the *exercise* of advisory jurisdiction by international courts and tribunals, and the circumstances in which the Tribunal's "discretionary power" to refuse to give an advisory opinion is engaged. While a court or tribunal should not refuse a request for an advisory opinion except for compelling reasons,[4] it also has the duty to satisfy itself as to the propriety of the exercise of its judicial functions and determine whether such compelling reasons exist with respect to each request for an advisory opinion.[5] Should compelling reasons exist, the court or tribunal must remain faithful to the requirements of its judicial character and protect the integrity of its judicial functions by declining to render an advisory opinion.[6] In these submissions, Singapore seeks to identify scenarios where there would be compelling reasons for a court or tribunal to refuse a request for an advisory opinion.

8. First, Singapore considers that there would be a compelling reason to reject a request where the advisory opinion would have the effect of obliging a State to submit its disputes for judicial settlement without the State's consent.[7] Where a question forming the subject of a request for an advisory opinion is closely related to a question in dispute between certain States, due consideration must be given to the existence or lack of consent from those States when deciding whether or not to exercise advisory jurisdiction. Singapore notes that the Tribunal briefly alluded to this in its *SRFC* Advisory Opinion when observing that the request in that case "[did] not involve an underlying dispute and that the issue of State consent simply [did] not arise" in those proceedings.[8]

9. Another compelling reason to reject a request for an advisory opinion is where there is insufficient information and evidence to arrive at a judicial conclusion upon any disputed

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[3] *SRFC* Advisory Opinion, at p. 25, para. 71, citing *Legality of the Threat or Use of Nuclear Weapons*, *Advisory Opinion, I.C.J. Reports 1996*, p. 226 ("***Nuclear Weapons* Advisory Opinion**"), at p. 235, para. 14.

[4] *Nuclear Weapons* Advisory Opinion, at p. 235, para. 14; *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, *Advisory Opinion, I.C.J. Reports 2004*, p. 136 ("***Wall* Advisory Opinion**"), at p. 156, para. 44.

[5] *Nuclear Weapons* Advisory Opinion, at p. 235, para. 14; *Wall* Advisory Opinion, at p. 157, para. 45.

[6] *Western Sahara, Advisory Opinion, I.C.J. Reports 1975*, p. 12 ("***Western Sahara* Advisory Opinion**"), at pp. 24–25, paras. 32–33.

[7] *Western Sahara* Advisory Opinion, at p. 25, para. 33.

[8] *SRFC* Advisory Opinion, at pp. 25–26, para. 75.

question of fact.[9] This may be the case if key facts underlying the request cannot be established without the involvement of particular States which have not participated in the advisory proceedings.[10] If a court or tribunal finds it does not have sufficient information and evidence to arrive at a judicial conclusion upon any disputed questions of fact, the determination of which is necessary for it to give an opinion in conditions compatible with its judicial character, judicial propriety behoves the court or tribunal to reject the request.[11] Doing so would also minimise the risk of the court or tribunal tying its hands in future contentious proceedings or vitiating its findings from the advisory proceedings, and thus safeguard its judicial function.

10. A further compelling reason is if the response to the request requires the creation of new law. This is because the Tribunal's mandate is to interpret and apply the provisions of UNCLOS rather than take on a law-making capacity.[12]

11. It is not apparent that any of these compelling reasons applies to the present request for an advisory opinion from the Tribunal. First, to Singapore's knowledge, the questions submitted by COSIS in these proceedings do not relate closely to any specific existing dispute between particular States. Secondly, as elaborated upon in Chapter 3 below, there is sufficient information and evidence, in particular in the Intergovernmental Panel on Climate Change ("**IPCC**") Special Report on the Ocean and Cryosphere in a Changing Climate ("**SROCC**")[13], to enable the Tribunal to make the necessary findings to provide an advisory opinion. Thirdly, the questions for which an advisory opinion is sought concern the interpretation and application of the provisions of UNCLOS rather than the making of new law. Moreover, this is a request made in good faith concerning climate change impacts which have been recognised as "a common concern of humankind".[14] Answering the legal questions would also assist COSIS in the performance of the activities under its mandate.[15] This is particularly the case given the vulnerability of small island developing States in the face of climate change impacts.[16] Given

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[9] *Western Sahara* Advisory Opinion, at pp. 28–29, para. 46.

[10] *Status of Eastern Carelia, P.C.I.J. Series B, No. 5*, at p. 28.

[11] *Western Sahara* Advisory Opinion, at pp. 28–29, para. 46; *Status of Eastern Carelia, P.C.I.J. Series B, No. 5*, at p. 28.

[12] See *Nuclear Weapons* Advisory Opinion, at p. 237, para. 18.

[13] Hans-Otto Pörtner, Debra C. Roberts, *et al.* (eds.), SROCC, 2019, available at <https://doi.org/10.1017/9781009157964>.

[14] Preambular paragraph 1 of the United Nations Framework Convention on Climate Change.

[15] See *SRFC* Advisory Opinion, at p. 26, para. 77 and *Responsibilities and Obligations of States with Respect to Activities in the Area, Advisory Opinion, 1 February 2011, ITLOS Reports 2011*, p. 10 ("***Advisory Opinion with Respect to Activities in the Area***"), at p. 24, para. 30.

[16] See Article 2 of the *Agreement for the Establishment of the Commission of Small Island States on Climate Change and International Law*, which refers to "Having regard to … the direct relevance of the marine

the gravity and importance of the questions before the Tribunal, Singapore has prepared the following submissions to assist the Tribunal in answering them.

CHAPTER 3

APPLICABILITY OF UNCLOS TO CLIMATE CHANGE

12. Before turning to the two questions submitted by COSIS regarding the specific obligations of UNCLOS States Parties in relation to climate change, an antecedent question is whether UNCLOS is capable of applying to climate change, given that the phenomenon of climate change was not well known to States during the UNCLOS negotiations some four decades ago and the term "climate change" does not appear in UNCLOS. Singapore submits that it is clear from the text of UNCLOS that it is capable of applying to climate change and its impacts, in particular through a number of its provisions in Part XII which set out obligations to prevent, reduce and control pollution of the marine environment.

13. Article 1(4) of UNCLOS defines "pollution of the marine environment" 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"

There are two limbs to the definition of "pollution of the marine environment" in Article 1(4). The first is that the act must involve the anthropogenic direct or indirect introduction of substances or energy into the marine environment. The second is that such introduction of substances or energy must result or be likely to result in such deleterious effects as the ones set out in the provision.

14. Two processes, which are associated with climate change and expressly mentioned in COSIS's questions to the Tribunal, are particularly relevant: ocean acidification and ocean warming. Singapore's view is that both processes clearly satisfy the two limbs of the definition

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environment to the adverse effects of climate change on Small Island States, the Commission shall be authorized to request advisory opinions from [the Tribunal] …"

of "pollution of the marine environment" in Article 1(4). As explained below, this view is grounded in scientific evidence set out in the reports of the IPCC. The IPCC is a body of the United Nations ("**UN**") which was established to provide internationally coordinated scientific assessments concerning climate change and comprises 195 member governments.[17] The IPCC is widely regarded as authoritative on climate science[18] and its reports are robust, objective and based on the collective assessment of scientists from across the world. In particular, its SROCC – which is referred to in these submissions – was accepted by all IPCC member governments at the IPCC's 51st session in 2019,[19] and is widely cited including in resolutions of the UN General Assembly.[20]

15. Even if there were a lack of full scientific certainty on some causes and effects of the processes of ocean acidification and ocean warming, the precautionary approach (which has been recognised by the Tribunal[21]) nonetheless entails that practicable action must be taken to prevent environmental degradation in these circumstances. According to Principle 15 of the 1992 Rio Declaration on Environment and Development, "the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."[22]

16. Ocean acidification refers to an increase in acidity of the ocean over an extended period, caused primarily by uptake of carbon dioxide from the atmosphere.[23] As noted in the SROCC, the ocean has taken up around 20 to 30% of total anthropogenic carbon dioxide emissions since

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[17] World Meteorological Organization, Resolution 4 (EC-XL) of 1988; UN General Assembly Resolution 43/53 of 6 December 1988 on "Protection of global climate for present and future generations of mankind"; "About the IPCC", available at <http://ipcc.ch/about>.

[18] See, for example, Decision 5/CP.13 of the Conference of the Parties to the UN Framework Convention on Climate Change, at para. 3, which recognises that the Fourth Assessment Report of the IPCC "represents the most comprehensive and authoritative assessment of climate change to date" and Decision 2/CP.17 of the Conference of the Parties to the UN Framework Convention on Climate Change, at para. 160(a), which refers to the IPCC assessment reports as the "best available scientific knowledge".

[19] See Decision IPCC-LI-3, Report of the Fifty-First Session of the IPCC (20–23 September 2019) where the Panel "accept[ed] the actions taken at the Second Joint Session of Working Groups I and II, related to the approval of the Summary for Policymakers of the [SROCC] and the acceptance of the underlying scientific-technical assessment in accordance with Section 4.4 of Appendix A to the Principles Governing IPCC Work".

[20] See, for example, UN General Assembly Resolution A/77/248 on "Oceans and the law of the sea", at para. 213 and UN General Assembly Resolution A/76/72 on "Oceans and the law of the sea", at para. 207.

[21] *Advisory Opinion with Respect to Activities in the Area*, at p. 47, para. 135 in which the Chamber observed that "the precautionary approach has been incorporated into a growing number of international treaties and other instruments, many of which reflect the formulation of Principle 15 of the Rio Declaration".

[22] UN General Assembly Doc. A/CONF.151/26 (Vol. I), at Annex 1.

[23] SROCC, Annex I: Glossary, at p. 693.

the 1980s, and this uptake of excess carbon dioxide has lowered the pH of the ocean since the late 1980s.[24] The first limb of the Article 1(4) definition of "pollution of the marine environment" is thus satisfied as carbon dioxide, a substance, is indirectly introduced by humans into the ocean in excess of the amount that would naturally be introduced into the ocean through non-anthropogenic sources. The second limb is also satisfied. The SROCC has articulated the deleterious effects of ocean acidification on marine life which fall within the scope of Article 1(4) of UNCLOS. In particular, ocean acidification, especially when combined with other climate change-related processes such as ocean warming, affects the growth and survival of various marine organisms such as corals, barnacles and mussels, which have calcium carbonate shells that corrode more easily in acidic water.[25]

17. As for ocean warming, the SROCC states that it is virtually certain that the global ocean has warmed unabated since 1970 and has taken up more than 90% of the excess heat in the climate system.[26] Ocean warming primarily occurs because of the introduction of heat energy into the marine environment (in excess of natural levels) as a result of anthropogenic greenhouse gas emissions,[27] thus the first limb of the Article 1(4) definition of "pollution of the marine environment" is satisfied. The deleterious effects which result from ocean warming have also been identified in the SROCC. Ocean warming is, among other things, a cause of open ocean nutrient cycles being perturbed, decreased productivity of fish stocks, and increased growth of harmful algal blooms and pathogens.[28] Ocean warming also results in the related process of ocean deoxygenation due to reduced oxygen solubility and increased oxygen consumption and stratification.[29] The loss in oxygen in turn further contributes towards the increased growth of harmful algal blooms and pathogens, and the harming of corals.[30] These effects cause negative impacts on food security, tourism, local economy and human health,[31] and fall within the scope of "such deleterious effects as … hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea" in Article 1(4). Further, ocean warming results in ocean thermal expansion and, in turn, sea level rise which is the third phenomenon (in addition to ocean warming and ocean acidification) highlighted in the questions posed by COSIS and which poses grave risks to human communities in low-lying

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[24] SROCC, Summary for Policy Makers, at para. A.2.5.

[25] SROCC, Summary for Policy Makers, at para. A.6.4.

[26] SROCC, Summary for Policy Makers, at para. A.2.

[27] SROCC, Chapter 5, at pp. 450–452 and pp. 457–458.

[28] SROCC, Technical Summary at pp. 61–62; SROCC, Summary for Policy Makers, at para. A.8.2.

[29] SROCC, Annex I: Glossary, at p. 693.

[30] SROCC, Technical Summary at p. 62; SROCC, Summary for Policy Makers, at para. B.5.4.

[31] SROCC, Summary for Policy Makers, at paras. A.8 and A.8.2.

coastal areas.[32] Singapore is keenly aware of this as a low-lying small island State with more than 50% of its population living within 3.5 kilometres from the coast.

18. The generation of anthropogenic greenhouse gas emissions, which cause climate change, therefore falls within the Article 1(4) definition of "pollution of the marine environment". As references to "pollution of the marine environment" can be found throughout Part XII of UNCLOS on "Protection and Preservation of the Marine Environment", these Part XII provisions must be read to cover climate change and its related processes and impacts, where appropriate. The subsequent chapters of this Statement address the specific obligations of States under the relevant Part XII provisions.

CHAPTER 4

STATES' OBLIGATIONS TO PREVENT, REDUCE AND CONTROL POLLUTION OF THE MARINE ENVIRONMENT IN RELATION TO CLIMATE CHANGE

I. General Observations

19. The first question submitted to the Tribunal asks about the specific obligations of UNCLOS States Parties "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".

20. Before delving into the specific obligations, it is useful to set out several general observations regarding Part XII of UNCLOS to lay the groundwork for an analysis of the relevant provisions.

21. First, it is important to bear in mind the global and collective nature of the climate change problem. Unlike other examples of pollution, such as oil spills and other discharges of substances, each instance of emission of greenhouse gases (which naturally exist in the Earth's atmosphere) may not on its own cause deleterious effects; rather, it is the scale of overall global

[32] SROCC, Summary for Policy Makers, at paras. A.3 and B.9.

emissions that has resulted in, and continues to exacerbate, the deleterious effects on the marine environment.

22. Secondly, the effects of climate change are not limited to deleterious effects on the marine environment, but also concern other harmful changes in the physical environment and biota including effects on terrestrial and freshwater ecosystems.

23. Any interpretation or application of the provisions of UNCLOS must accordingly take into account the global, collective and cross-cutting nature of the problem, and the fact that the provisions of Part XII exist as part of a wider ecosystem of international instruments and organisations, with their respective competences, norms and processes. The UNCLOS regime must support rather than supplant or undermine these competences, norms and processes. This is particularly the case as the relevant norms and processes are often highly technical in nature and may address matters which extend beyond the marine environment, and are therefore better left to be developed, updated, implemented and enforced by specialised international organisations, in accordance with their constituent instruments. It is also for that reason that Singapore considers that internationally agreed rules and standards may be relevant as part of the applicable law under Article 293 of UNCLOS and Article 23 of the Statute of the Tribunal in relation to the interpretation and application of UNCLOS.

24. Part XII of UNCLOS recognises this wider ecosystem through its many references to rules and standards developed under other instruments instead of setting out detailed rules and standards in respect of each source of marine pollution.[33] Sections 5 and 6 of Part XII make reference to "generally accepted international rules and standards", "global and regional rules, standards and recommended practices and procedures" or "internationally agreed rules, standards and recommended practices and procedures" (known collectively as "**GAIRS**")[34] and reflect the Parties' intention for Part XII to establish general rules to serve as a "legal framework for specific global or regional agreements".[35]

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[33] Myron H. Nordquist, Satya Nandan and Shabtai Rosenne (eds.), *United Nations Convention on the Law of the Sea Commentary 1982 Online Publication* (Center for Oceans Law and Policy, University of Virginia) (Brill, 2013) ("**Virginia Commentary**"), at p. 21, para. XII.26.

[34] The provisions in Sections 5 and 6 use different formulations to refer to GAIRS. Articles 207, 208 and 210 use "global and regional rules, standards and recommended practices and procedures", Article 211 uses "generally accepted international rules and standards", Article 212 uses "internationally agreed rules, standards and recommended practices and procedures" and Articles 213, 214, 216, 217, 218, 219, 220 and 222 in Section 6 on "Enforcement" use "applicable international rules and standards". This is reflective of how each provision on sources of pollution reflects a specific and delicate compromise. See Alexander Proelss (ed.), *United Nations Convention on the Law of the Sea: A Commentary* (Nomos, 2017) ("**Proelss**"), at pp. 1378–1450.

[35] Virginia Commentary, at p. 4, para XII.3.

25. This interplay of UNCLOS with other internationally agreed rules via GAIRS allows for rules and standards to evolve in response to technological advances, scientific knowledge and new threats to the marine environment, as States cooperate to establish new standards through competent international organisations or diplomatic conference pursuant to obligations such as those contained in Article 197 of UNCLOS.[36]

26. It also bears emphasising that the provisions of Part XII must be read consistently with the rights and obligations of States in the rest of UNCLOS. This is in line with the principle of effectiveness, a "fundamental principle" of treaty interpretation flowing from the general rule of interpretation in Article 31(1) of the Vienna Convention on the Law of Treaties ("**VCLT**")[37] under which all treaty provisions must be read "in a way that gives meaning to all of them, harmoniously."[38] Therefore, a treaty provision cannot be interpreted in isolation, but in the light of the treaty as a whole.[39] The principle of effectiveness finds expression in Part XII provisions such as Article 194(1), which provides that measures to prevent, reduce and control pollution of the marine environment must be "consistent with this Convention", as well as Article 194(4) which provides that in taking such measures, "States shall refrain from unjustifiable interference with activities carried out by other States in the exercise of their rights and in pursuance of their duties in conformity with this Convention". Other provisions in UNCLOS also serve to reinforce that States' obligations to prevent, reduce and control pollution of the marine environment shall not derogate from the rights and obligations of States relating to freedom of navigation in various maritime zones.[40]

27. Singapore now analyses what it considers to be the most salient provisions under Part XII of UNCLOS, which set out the specific obligations on States Parties to prevent, reduce

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[36] Article 237, which provides that "[t]he provisions of [Part XII] are without prejudice … to agreements which may be concluded in furtherance of the general principles set forth in this Convention", also recognises that States Parties may conclude new agreements which relate to the protection and preservation of the marine environment.

[37] See *Territorial Dispute (Libyan Arab Jamahiriya/Chad), Judgment, I.C.J. Reports 1994*, p. 6, at p. 25, para. 51, in which the International Court of Justice identified the principle of effectiveness as "one of the fundamental principles of interpretation of treaties, consistently upheld by international jurisprudence".

[38] *Korea – Definitive Safeguard Measure on Imports of Certain Dairy Products*, AB-1999-8, WT/DS98/AB/R, at p. 24, para. 81.

[39] See *Competence of the ILO in regard to International Regulation of the Conditions of the Labour of Persons Employed in Agriculture, P.C.I.J., Series B, No. 2*, at p. 23, which held that "[i]n considering the question before the Court upon the language of the Treaty, it is obvious that the Treaty must be read as a whole, and that its meaning is not to be determined merely upon particular phrases which, if detached from the context, may be interpreted in more than one sense."

[40] See, for example, Article 233, which provides that "[n]othing in Sections 5, 6 and 7 [of Part XII] affects the legal regime of straits used for international navigation." Article 211(4) also provides that laws and regulations adopted by coastal States for the prevention, reduction and control of marine pollution from foreign vessels shall not hamper innocent passage of foreign vessels in their territorial sea.

and control pollution of the marine environment in relation to the deleterious effects that result or are likely to result from climate change.

II. Key Provisions

A. Article 194

28. Article 194 concretises the general principles under Articles 192 and 193 into more specific obligations of States.[41] Article 194(1) provides an obligation for States to 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". Article 194(2) further provides that "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". Article 194(3) reiterates that the measures taken pursuant to Part XII shall deal with "all sources" of marine pollution, which are expanded on through more detailed provisions in Section 5. In line with Singapore's submissions in Chapter 3 above, Article 194 should be read to include the obligation of States to take all measures necessary to prevent, reduce and control anthropogenic greenhouse gas emissions causing deleterious effects to the marine environment.

29. In keeping with the character of many obligations under international environmental law, the general obligations to prevent, reduce and control pollution under Article 194(1) and to ensure that activities within a State's jurisdiction and control do not cause transboundary damage by pollution under Article 194(2) are framed as due diligence obligations.[42] They refer to States taking "all measures … that are necessary" and "all measures necessary" to prevent, reduce and control pollution. Similarly worded obligations in UNCLOS and in other treaties have been interpreted by the International Court of Justice ("**ICJ**") and the Seabed Disputes Chamber of this Tribunal as importing obligations of due diligence.[43]

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[41] Proelss, at p. 1297, para. 1.

[42] Proelss, at p. 1306, para. 20.

[43] The obligation to take "all necessary measures" has been interpreted by courts and tribunals in the context of other provisions as one where standards of due diligence apply. See *Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment*, *I.C.J. Reports 2010*, p. 14. In considering Article 36 of the 1975 Statute of the River Uruguay (which required Argentina and Uruguay to co-ordinate the necessary measures to avoid changing the ecological balance of the River Uruguay), the ICJ held that the "obligation to adopt regulatory or administrative measures either individually or jointly and to enforce them is an obligation of conduct. Both Parties are therefore called upon, under Article 36, to exercise due diligence … for the necessary measures to preserve the ecological balance of the river" (at p. 77, para. 187). See also *Advisory Opinion with Respect to Activities in the Area*, at p. 43, para. 119, where the Seabed Disputes Chamber held that the purpose of Article 139(2), among others, was

30. Due diligence has traditionally been invoked in situations to establish the legal responsibility of a State in connection with the behaviour of private actors that cannot be attributed directly to the State.[44] Due diligence is not a standalone obligation but a concept which attaches to primary rules in a specific context.[45] In international environmental law, due diligence has arisen in the context of the obligation to prevent or minimise the risk of significant transboundary harm.[46] In *Pulp Mills on the River Uruguay (Argentina v. Uruguay)* ("***Pulp Mills***"), the ICJ identified a treaty obligation to prevent pollution and preserve the aquatic environment as an "obligation to act with due diligence", and held that such obligations require both "the adoption of appropriate rules and measures" as well as "a certain level of vigilance in their enforcement and the exercise of administrative control applicable to public and private operators, such as the monitoring of activities".[47]

31. A key feature of due diligence is that it is an "obligation of conduct" and not of result.[48] In the words of the Seabed Disputes Chamber, a due diligence obligation is "not an obligation to achieve in each and every case, the result [envisaged by the norm]. Rather, it is an obligation to deploy adequate means, to exercise best possible efforts, to do the utmost, to obtain this result."[49] It follows that a State cannot be held responsible for the breach of an obligation of this character (even when actual damage may have occurred), as long as it has taken all reasonable measures to prevent foreseeable damage. However, a State must act in good faith, in keeping with the general principle of *pacta sunt servanda* which is also underlined in Article 300 of UNCLOS. This Tribunal has held that good faith in the context of due diligence obligations under Part XII of UNCLOS entails that "[r]easonableness and non-arbitrariness must remain the hallmarks of any action taken by [a] State."[50]

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to exempt a sponsoring State that had taken "all necessary and appropriate measures" from liability for damage caused by its sponsored contractor in the Area, by virtue of having satisfied the due diligence standards applicable.

[44] Timo Koivurova and Krittika Singh, "Due Diligence" in Max Planck Encyclopedia of Public International Law on Oxford Public International Law (Oxford University Press, 2022).

[45] *Ibid.*

[46] In *Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment*, *I.C.J. Reports 2010*, p. 14, the ICJ held that "[a] State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State" and noted that this obligation "is now part of the corpus of international law relating to the environment" (at p. 56, para. 101).

[47] *Pulp Mills*, at p. 79, para. 197.

[48] See *SRFC Advisory Opinion*, at p. 40, para. 129 and *Pulp Mills*, at p. 77, para. 187.

[49] *Advisory Opinion with Respect to Activities in the Area*, at p. 41, para. 110.

[50] *Advisory Opinion with Respect to Activities in the Area*, at p. 71, para. 230.

32. In the context of Article 194(1) and (2), the concept of due diligence informs the analysis of whether States have taken "all measures … necessary" to prevent, reduce and control greenhouse gas emissions. Due diligence is a "variable concept" and as such the Seabed Disputes Chamber has held that "[t]he content of 'due diligence' obligations may not easily be described in precise terms."[51] The assessment of whether a State has taken "all measures … necessary" is therefore context-specific. While the flexibility of due diligence accommodates a large margin of State discretion, several factors have been identified as relevant in determining the content of due diligence under international law.

33. First, the nature of the activity and its risk is a primary factor in determining what action must be taken by States. What is required for due diligence would be more onerous for riskier activities.[52] As the International Law Commission ("**ILC**") noted in the context of its 2001 Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities, "activities which may be considered ultrahazardous require a much higher standard of care in designing policies and a much higher degree of vigour on the part of the State to enforce them."[53] In addition, the ILC identified issues such as the size and location of the operation, special climate conditions and materials used in the activity as relevant in determining the level of risk of an activity.[54] In a similar vein, the Seabed Disputes Chamber highlighted that activities in the Area concerning different kinds of minerals may require "different standards of diligence".[55]

34. Second, the content of due diligence may evolve with scientific knowledge and technological development. Measures considered "sufficiently diligent" at a certain moment in time may no longer be so as science and technology progresses.[56] Hence, in *Pulp Mills*, the ICJ observed that due diligence entails "a careful consideration of the technology to be used" in respect of the activity.[57] A further implication identified by the Seabed Disputes Chamber is that measures "may not be appropriate in perpetuity" and should be "kept under review" in order to ensure that they meet the prevailing standard of diligence.[58]

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[51] *Advisory Opinion with Respect to Activities in the Area*, at p. 43, para. 117.

[52] *Ibid.*

[53] ILC, *Draft articles on Prevention of Transboundary Harm from Hazardous Activities, with commentaries*, UN Doc. A/56/10 (2001) ("***ILC Draft Articles on Transboundary Harm***"), Commentary on Article 3, at p. 154, para. 11.

[54] *Ibid*.

[55] *Advisory Opinion with Respect to Activities in the Area*, at p. 43, para. 117.

[56] *Ibid*.

[57] *Pulp Mills*, at pp. 88–89, para. 223.

[58] *Advisory Opinion with Respect to Activities in the Area*, at p. 69, para. 222.

35. Third, the individual capacities, capabilities and constraints of a State would also be relevant in determining the content of the due diligence obligation. The notion of differentiated responsibility finds expression in Article 194(1) which requires States to use the "best practicable means at their disposal and in accordance with their capabilities" in taking measures to prevent, reduce and control pollution. As is characteristic of the flexible model of due diligence, the extent to which differentiated responsibility applies would depend on the context and nature of the primary obligation relied upon.[59] In the climate change context (as explained below), the relevant instruments explicitly recognise the need to take into account common but differentiated responsibilities of States and respective capabilities of States, in the light of their different national circumstances.[60]

36. Applying the precautionary approach may also be a relevant factor in meeting a State's obligation of due diligence under Article 194 of UNCLOS, as the Seabed Disputes Chamber considered that the precautionary approach was an "integral part of the general obligation of due diligence".[61] The precautionary approach has been addressed in paragraph 15 above. In the context of its obligations to act with due diligence, the precautionary approach requires a State not to disregard plausible indications of threats of serious or irreversible environmental damage, even when scientific evidence on the scope and impacts of an activity is insufficient.[62] For example, although there remain limitations in scientific knowledge about climate change impacts on certain types of marine environments (such as the deep ocean floor) and ecosystem components (such as viruses and protists),[63] this should not be a justification for ignoring the risks to these marine environments and ecosystem components when determining practicable measures to take. The precautionary approach does not dictate what measures a State must take but the manner in which the discretion of the State is exercised in determining the measures it takes.

37. Finally, internationally agreed rules may also inform the content of the due diligence obligations under Article 194. Article 31(3)(c) of the VCLT, which reflects customary international law on the interpretation of treaties,[64] provides that "any relevant rules of

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[59] James Harrison, "The United Nations Convention on the Law of the Sea and the Protection and Preservation of the Marine Environment" from *Saving Oceans Through Law: The International Legal Framework for the Protection of the Marine Environment* (Oxford University Press, 2017), at para. 2.3.3.

[60] Article 2(2) of the Paris Agreement. See also, for example, Articles 3 and 4(3)–(6) of the Paris Agreement.

[61] *Advisory Opinion with Respect to Activities in the Area*, at p. 46, para. 131.

[62] *Ibid*.

[63] SROCC, at Chapter 5 (Section 5.7 on "Key Uncertainties and Gaps"), at p. 544.

[64] On the customary international law status of Article 31, see *Pulp Mills*, at p. 46, para. 64; *Legality of the Use of Force Case (Serbia and Montenegro v. Belgium), Preliminary Objections, Judgment, I.C.J. Reports 2004*, p. 279,

international law applicable in relations between the parties" may be taken into account for the purposes of interpretation of the treaty. However, "any relevant rules of international law" for the purposes of interpreting UNCLOS, given its multilateral character, would have to be the subject of nearly universal adherence in order to qualify as "applicable in the relations between the parties" to UNCLOS. The UN Framework Convention on Climate Change ("**UNFCCC**") and the Paris Agreement, which have 198 and 195 Parties respectively, would fulfil this criterion.

38. The UNFCCC regime provides the *lex specialis* in respect of greenhouse gas emissions which informs the content of the due diligence obligations to take "all measures … necessary" to prevent, reduce and control pollution of the marine environment. It also follows that States' compliance with their commitments under the UNFCCC regime would indicate that they have met their due diligence obligations in respect of greenhouse gas emissions under Article 194 of UNCLOS. In *Pulp Mills*, the ICJ was persuaded that the due diligence obligation to take all measures to prevent pollution under Article 41(a) of the 1975 Statute of the River Uruguay (signed by Argentina and Uruguay) had been satisfied as Uruguay had complied with the relevant standards in the pulp and paper industry.[65] Singapore submits that this is in line with the barometer of "reasonableness"[66] that undergirds the concept of due diligence. It would be difficult for States to be expected to deliver a higher degree of diligence than encapsulated in internationally agreed standards.

39. Under Article 4(2) of the Paris Agreement, Parties are required to "prepare, communicate and maintain successive nationally determined contributions" ("**NDCs**"). Under Article 4(3), each successive NDC "will represent a progression" beyond its previous one although it remains within the discretion of each Party to determine the level of ambition of its NDCs "reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances." Under Article 4(8), Parties are required in communicating their NDCs to "provide information necessary for clarity, transparency and understanding in accordance with decision 1/CP.21". Decision 1/CP.21 of the Conference of the Parties to the UNFCCC in turn provides that such communication may include, among others, "how the Party considers its [NDC] is fair and ambitious, in the light of its national circumstances".[67] National circumstances that are relevant to the fairness and ambition of Parties' NDCs include the difficulties that some Parties face in switching to alternative energy

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at p. 318, para. 100 and *Lagrand (Germany v. United States of America)*, *Judgment, I.C.J. Reports 2001*, p. 466, at p. 501, para. 99.

[65] See *Pulp Mills*, at pp. 88–91, paras. 220 and 223–228.

[66] *Advisory Opinion with Respect to Activities in the Area*, at para. 230.

[67] Decision 1/CP.21 of the Conference of the Parties to the UNFCCC, at para. 27.

options by virtue of their geographical constraints. Therefore, a State can accordingly demonstrate that it has complied with its obligations under Article 4 of the Paris Agreement, as part of fulfilling its due diligence obligations in relation to greenhouse gas emissions under Article 194(1) and (2).

40. Drawing from the relevant factors identified above, Singapore submits that in the context of climate change, the due diligence obligations under Article 194(1) and (2) require States to give *bona fide* consideration to taking practicable measures within their capabilities to address anthropogenic greenhouse gas emissions of activities within their jurisdiction or control. Such consideration must encompass the adoption of appropriate rules, as well as enforcement and administrative control, tailored to the nature of the activity and the risk. States must apply the precautionary approach in determining the measures they take. However, in taking measures under Article 194, States shall not interfere unjustifiably with the exercise of rights or discharge of duties under UNCLOS by other States.[68]

41. In addition, under Article 194(1), the reference to States taking necessary measures "individually or jointly as appropriate" means that in the context of climate change, the obligation extends to participating in good faith in international efforts at rule-making and standard-setting such as under the UNFCCC and the Paris Agreement. States shall also "endeavour to harmonise their policies" which in the context of climate change amounts to an obligation to negotiate with other States in good faith to harmonise their national measures on the prevention, reduction and control of greenhouse gas emissions. This is a "best efforts" obligation, which is continuing in nature and does not require that "such attempts [to harmonise] precede any action with respect to the marine environment"[69]. These aspects of Article 194 need to be understood in the light of the duty to cooperate under Article 197.

B. Article 197

42. Section 2 of Part XII, on "Global and regional cooperation" contains provisions which broadly relate to the duty of States to cooperate with each other on matters concerning the marine environment. The duty to cooperate has been described by the Tribunal as a "*Grundnorm*" or a "fundamental principle in the prevention of pollution of the marine

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[68] Article 194(4) of UNCLOS.

[69] *The Chagos Marine Protected Area Arbitration (Mauritius v. United Kingdom), Award of 18 March 2015* ("***Chagos* Arbitration**"), at p. 211, para. 539.

environment under Part XII" of UNCLOS.[70] In the light of the global nature of the climate change problem, this duty warrants especially close attention in this context.

43. A few general points regarding the duty to cooperate should be made at the outset:

a. First, similar to due diligence (as mentioned above), the duty to cooperate is an "obligation of conduct". It is focused on States' conduct in terms of cooperating with each other and generally does not require States to reach a particular substantive outcome as a result of their cooperation, although the outcomes of such cooperation may sometimes shed light on the extent to which a State has fulfilled its obligation to cooperate.

b. Second, the duty to cooperate is of a continuing nature and generally cannot be satisfied by a one-time act. These submissions will elaborate further on this below. It is also worth noting that the duty to cooperate "extends to all phases of planning and of implementation" of a State's policies.[71]

c. Third, as discussed in the context of due diligence, States must fulfil all of their UNCLOS obligations in good faith. This similarly applies to the duty to cooperate.[72]

d. Finally, the general duty to cooperate consists of specific obligations set out in Section 2 of Part XII, which provide greater clarity to States as to what is required of them in order to properly carry out this duty.

44. Article 197 sets out the obligation for States to cooperate "in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment". While it does not mention the prevention, reduction and control of pollution of the marine environment specifically, this still falls within the scope of "protection and preservation of the marine environment". In the climate change context, States must therefore cooperate in formulating and elaborating international rules, standards and recommended

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[70] *MOX Plant (Ireland v. United Kingdom), Provisional Measures, Order of 3 December 2001, ITLOS Reports 2001*, at p. 110., para. 82, as well as Judge Rüdiger Wolfrum's Separate Opinion.

[71] *ILC Draft Articles on Transboundary Harm*, Commentary on Article 4, at p. 155, para. 1.

[72] See also the *Nuclear Tests (Australia v. France), Judgment, I.C.J. Reports 1974*, p. 253, at p. 268, para. 46, where the ICJ stated that good faith was "[o]ne of the principles governing the creation and performance of legal obligations" and that "[t]rust and confidence are inherent in international co-operation".

practices and procedures consistent with UNCLOS, for the prevention, reduction and control of anthropogenic greenhouse gas emissions, such as those under the UNFCCC and the Paris Agreement. While this does not mandate a particular substantive result (such as reaching agreement on and establishing rules, *etc.*), it does require States to participate in good faith in international normative processes. It follows that a State that refuses to negotiate at all in good faith to establish any such rules, *etc.*, would be in breach of this specific obligation.

45. In addition, the specific obligation to cooperate to formulate and elaborate international rules, *etc.*, to prevent, reduce and control anthropogenic greenhouse gas emissions is one that is continuing in nature. States must continually re-examine and strengthen the relevant rules and standards in this regard, including through continuing to participate meaningfully in ongoing processes under the UNFCCC and the Paris Agreement, such as the annual Conferences of the Parties and the Ocean and Climate Change Dialogue, which are focused on issues concerning oceans and the marine environment.

C. Article 200 and Article 201

46. Articles 200 and 201 also fall within Section 2 of Part XII on "Global and regional cooperation" and provide for specific ways in which States must cooperate in relation to pollution of the marine environment.

47. Article 200 requires States to cooperate "for the purpose of promoting studies, undertaking programmes of scientific research and encouraging the exchange of information and data acquired about pollution of the marine environment". The sharing of information among States is especially important in the climate change context, considering the global nature of the problem. The specific obligation is for States to participate in good faith in platforms that promote studies, undertake programmes of scientific research and encourage the exchange of information and data about anthropogenic greenhouse gas emissions and climate change, including the discussions and meetings of the IPCC which are open to all UN Member States.

48. Article 201 requires States to, "[i]n the light of the information acquired pursuant to [A]rticle 200", cooperate "in establishing appropriate scientific criteria for the formulation and elaboration of rules, standards and recommended practices and procedures for the prevention, reduction and control of pollution of the marine environment". In line with the above analysis on Article 197, the specific obligation in the climate change context is for States to participate in good faith in platforms through which they can cooperate in establishing appropriate scientific criteria for the formulation of rules, *etc.*, for the prevention, reduction and control of anthropogenic greenhouse gas emissions. This includes discussions of the Subsidiary Body for Scientific and Technological Advice ("**SBSTA**") under the UNFCCC, which supports the work

of the Conference of the Parties to the UNFCCC and the Paris Agreement through providing information and advice on scientific and technological matters, thus serving as the link between the scientific information provided by expert sources such as the IPCC and the formulation and elaboration of rules, *etc.*, by the Conference of the Parties.

D. Article 202

49. Article 202 specifies States' obligations in relation to the provision of scientific and technical assistance to developing States for the prevention, reduction and control of pollution of the marine environment. In the context of climate change, Article 202(a) requires States to promote assistance programmes to developing States for the prevention, reduction and control of anthropogenic greenhouse gas emissions.[73] As with the obligations under Articles 200 and 201, the reference to "promote" together with a non-exhaustive list in Article 202(a) of the types of assistance envisaged indicates a "best efforts" obligation of conduct rather than a specific result.

E. Article 207 and Article 212

50. The broad obligations under Article 194 to prevent, reduce and control marine pollution are further concretised in subsequent provisions which address different sources of pollution. The provisions under Section 5 require States to take necessary measures with regard to legislative and non-legislative acts. The provisions in Section 5 can be seen as "a counterpart to the policy-setting provisions of Article 194" and indicate the relationship that is to be maintained between international rules and national measures in respect of the sources of marine pollution.[74]

51. The two most relevant Section 5 provisions in the context of climate change and anthropogenic greenhouse gas emissions are Article 207 on pollution from land-based sources (which covers all airborne emissions from land-based sources including industrial and agricultural activities, power generation, *etc*.) and Article 212 on pollution from or through the atmosphere (which covers airborne emissions from vessels and aircraft, non-land-based activities as well as atmospheric pollution which may have had their original source on land

[73] For example, the Singapore Cooperation Programme offers technical assistance courses in topics including mitigation policies and technologies.

[74] Virginia Commentary, at p. 127, para. 207.1.

and have been transferred through the atmosphere).[75] These provisions should also be read with their corresponding enforcement provisions in Article 213 (with respect to land-based pollution) and Article 222 (with respect to pollution from or through the atmosphere), which will be addressed later.

52. Both Articles 207 and 212 contain obligations for States to "adopt laws and regulations to prevent, reduce and control pollution of the marine environment … taking into account internationally agreed rules, standards and recommended practices and procedures" (at paragraph 1), as well as to "take other measures as may be necessary to prevent, reduce and control such pollution" (at paragraph 2). In the context of climate change, paragraphs 1 and 2 of Articles 207 and 212 would include the adoption of laws and regulations, as well as other measures to prevent, reduce and control anthropogenic greenhouse gas emissions causing deleterious effects to the marine environment. Article 207 applies to pollution from a State's land territory while Article 212 applies to its sovereign airspace and its flagged vessels and aircraft.

53. Under paragraph 1 of Articles 207 and 212, States must adopt laws and regulations and in doing so must take into account internationally agreed rules, standards and recommended practices and procedures. However, the exact content of these laws and regulations is not specified and the obligation of due diligence would apply in this regard. The obligation under paragraph 2 of Articles 207 and 212 to take "other measures as may be necessary" is similar to the obligations to "take … all measures … that are necessary" and "take all measures necessary" set out in Article 194(1) and (2) respectively. The due diligence obligation therefore also applies to paragraph 2 of Articles 207 and 212. States are therefore required to give *bona fide* consideration to taking other practicable measures within their capabilities to address land-based pollution or pollution from or through the atmosphere resulting from activities within their jurisdiction or control. Such consideration must be tailored to the nature of the activity and the risk, and be informed by the precautionary approach.

54. In addition, when considering the enactment of laws and regulations under paragraph 1 of Articles 207 and 212, "internationally agreed rules, standards and recommended practices and procedures" (*i.e.*, GAIRS) must be taken into account. "Taking into account" is the "weakest of the qualifications"[76] used to indicate the obligations of States in respect of GAIRS, compared to other formulations in Section 5 which oblige States to enact national laws and

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[75] Article 211 on pollution from vessels has not been considered here because air-borne pollution caused by vessels (such as ship exhaust) is governed by Article 212 as the *lex specialis* provision, instead of Article 211. On Article 211, see Proelss, at p. 1422, para. 2.

[76] Virginia Commentary, at p. 132, para. 207.7(a).

regulations "no less effective" than an international minimum standard.[77] While this means States have latitude under these provisions to adopt more or less stringent domestic measures than GAIRS,[78] they are still obliged to have applied their minds in good faith to GAIRS in the formulation of these measures. Moreover, this does not detract from the enforcement of a particular GAIRS through the compliance regime, if any, under the relevant legal framework establishing the GAIRS.

55. For an instrument to constitute "internationally agreed rules, standards and recommended practices and procedures", there should be (i) broad participation by States in its making (as Articles 207(4) and 212(3) specify that GAIRS are established by States "through competent international organizations or diplomatic conference"[79]) and (ii) broad acceptance by States of its normative status. The UNFCCC and the Paris Agreement fulfil these criteria as GAIRS under Articles 207 and 212 in relation to greenhouse gas emissions. In relation to ship-source pollution from or through the atmosphere under Article 212, Annex VI of the International Convention for the Prevention of Pollution from Ships ("**MARPOL**"), which sets the relevant standards to minimise airborne greenhouse gas emissions from ships and the carbon intensity of global shipping, also fulfils the criteria. In addition, the inclusion of "recommended practices and procedures" in the wording of GAIRS used in Articles 207 and 212 makes it clear that these are also intended to include non-legally binding soft law instruments, provided that they meet the same criteria. Examples of such non-legally binding soft law instruments are Resolutions MEPC.366(79) and MEPC.367(79) adopted by the Marine Environment Protection Committee of the International Maritime Organization ("**IMO**").[80] In the context of climate change, States Parties to UNCLOS are accordingly required to take into account in good faith the UNFCCC and the Paris Agreement, Annex VI of MARPOL, and IMO Resolutions MEPC.366(79) and MEPC.367(79) in adopting laws and regulations under Articles 207 and 212.

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[77] See Article 208(3) on pollution from seabed activities subject to national jurisdiction, Article 209(2) on pollution from activities in the Area and Article 210(6) on dumping, which require domestic laws and regulations to be "no less effective" than GAIRS. Article 211(2) on pollution from vessels which pertains to non-airborne pollution captures a similar idea with slightly different wording, requiring that domestic laws and regulations "shall at least have the same effect" as that of GAIRS.

[78] Virginia Commentary, at p. 132, para. 207.7(a).

[79] "Diplomatic conference" indicates that the "internationally agreed rules, standards and recommended practices and procedures" were established through a plenipotentiary conference of the representatives of States, not representatives of international intergovernmental organisations or of independent experts. See Proelss, at p. 1428, para. 14.

[80] IMO Resolution MEPC.366(79), "Invitation to Member States to Encourage Voluntary Cooperation between the Port and Shipping Sectors to Contribute to Reducing GHG Emissions from Ships" and IMO Resolution MEPC.367(79), "Encouragement of Member States to Develop and Submit Voluntary National Action Plans to Address GHG Emissions from Ships", adopted on 16 December 2022.

56. Articles 207(4) and 212(3) also set out obligations to "endeavour to establish global and regional rules, standards and recommended practices and procedures" to prevent, reduce and control pollution, especially by acting through competent international organisations or diplomatic conference. The use of the word "endeavour" in Articles 207(4) and 212(3) indicates that the obligations provided therein do not mandate a particular substantive result. The obligation imposed by these two paragraphs is instead similar to the duty to cooperate under Article 197, namely, to participate in good faith in the relevant international efforts.

57. In the context of climate change, these international efforts would include the negotiation of general climate change-related treaties such as the UNFCCC and the Paris Agreement and sector-specific processes such as the adoption of relevant standards on greenhouse gas emissions in shipping under Annex VI of MARPOL, and standards and recommended practices for the Carbon Offsetting and Reduction Scheme for International Aviation under Annex 16 to the Convention on International Civil Aviation.

58. Under Article 207(4), States are required to take into account "characteristic regional features, the economic capacity of developing States and their need for economic development" when seeking to establish international rules, standards and recommended practices and procedures. Singapore notes that, in the context of climate change, the UNFCCC and the Paris Agreement and other climate change-related treaties have provided for differentiated obligations on developed and developing countries, guided by the principle of equity and common but differentiated responsibilities and respective capabilities.[81] Article 207(4) also expressly states that the relevant rules, standards and recommended practices and procedures shall "be re-examined from time to time as necessary", making clear that there is a continuing obligation on States to review these norms to ensure they are fit for purpose. While Article 212 does not have the equivalent of Article 207(4) for pollution from or through the atmosphere, similar obligations should be implied as part of the due diligence obligation it imposes.

F. Article 213 and Article 222

59. The provisions in Section 6 on "Enforcement" have been said to "give practical effect" to Article 194.[82] The corresponding enforcement obligations for land-based pollution under Article 213 and pollution from or through the atmosphere under Article 222 are twofold.

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[81] See, for example, the preambles of the UNFCCC and the Paris Agreement.

[82] Virginia Commentary, at p. 215, para. 213.1.

60. First, they impose a general obligation on States to enforce the laws and regulations adopted in accordance with Article 207 (on land-based pollution) and Article 212 (on pollution from or through the atmosphere) respectively. These enforcement obligations are aimed at ensuring that States not only adopt national laws and regulations under Articles 207(1) and 212(1), but that States act with due diligence in ensuring that these domestic norms are implemented and complied with. The obligation is one of conduct rather than result and may be discharged through a range of policy choices by States within the framework of their legal systems,[83] from prosecution for breaches of the relevant laws and regulations to administrative warnings and other informal measures. In the context of climate change, these enforcement obligations would apply to enforcing any laws and regulations related to the prevention, reduction and control of anthropogenic greenhouse gas emissions causing deleterious effects to the marine environment.

61. Second, Articles 213 and 222 also oblige States to "adopt laws and regulations and take other measures necessary to implement applicable international rules and standards" pertaining to land-based pollution and pollution from or through the atmosphere respectively. "Applicable international rules and standards" refer to rules and standards which are binding on the State concerned, either as treaty obligations duly accepted by it or as customary law.[84] Whether the adoption of laws and regulations is necessary to implement specific international rules or standards would depend on the instrument establishing them. In the context of climate change, the obligations under Article 4 of the Paris Agreement are applicable international rules. However, the Paris Agreement does not specify the modality of meeting these obligations and therefore gives latitude to States to determine, in line with their domestic legal regimes, whether the promulgation of laws and regulations is necessary or whether non-legislative measures will suffice.

[83] *Advisory Opinion with Respect to Activities in the Area*, at p. 70, paras. 227–229.

[84] Proelss, at p. 1455, para. 10.

CHAPTER 5

STATES' OBLIGATIONS TO PROTECT AND PRESERVE THE MARINE ENVIRONMENT IN RELATION TO CLIMATE CHANGE IMPACTS

I. General Observations

62. The second question which COSIS has submitted to the Tribunal asks about the specific obligations of States Parties to UNCLOS "to protect and preserve the marine environment in relation to climate change impacts, including ocean warming and sea level rise, and ocean acidification". Borrowing the language of climate change law, while the first question looks primarily at mitigation of climate change by means of controlling greenhouse gas emissions, the second question has a greater focus on adaptation to climate change as well as mitigation by means of conserving the ocean as a carbon sink.

63. At the outset, Singapore observes that the focus on Part XII of UNCLOS is clearly on the mitigation of polluting effects on the marine environment, as reflected by the number of provisions that refer directly to the prevention, reduction and control of pollution, including Article 194, as well as the sector-specific obligations in Sections 5 and 6. However, Part XII is not limited to measures aimed strictly at addressing marine pollution.[85]

II. Key Provisions

A. Article 192 and Article 194

64. The "[g]eneral obligation" of States under Part XII of UNCLOS "to protect and preserve the marine environment" is expressly provided for in Article 192. Article 192 has been considered to contain two elements: (i) the "protection" of the marine environment from future damage as well as (ii) "preservation" which entails maintaining or improving its present condition.[86] Article 192 entails an obligation to take active measures to protect and preserve the marine environment, and as a corollary, the negative obligation not to degrade the marine environment.[87] The observations made earlier in paragraph 26 that the provisions of Part XII

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[85] *Chagos* Arbitration, at paras. 320 and 538.

[86] *The South China Sea Arbitration (Philippines v. China), Award of 12 July 2016*, PCA Case No. 2013-19, at pp. 373–374, para. 941.

[87] *Ibid.*

need to be read consistently with the rights and obligations of States in other parts of UNCLOS would also apply.

65. The content of the general obligation in Article 192 is concretised in the subsequent provisions of Part XII. While the Tribunal in the *Southern Bluefin Tuna* case expressly regarded "the conservation of [the seas'] living resources" (in the fourth preambular paragraph of UNCLOS) as "an element in the protection and preservation of the marine environment",[88] Article 194(5) specifically provides that "[t]he measures taken in accordance with [Part XII] 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." It follows that, by virtue of Article 194(5), the due diligence and good faith obligations in Part XII provisions which are focused on prevention, reduction and control of pollution of the marine environment, such as Article 194(1)[89], extend to considering measures necessary to protect and preserve rare or fragile ecosystems and marine life threatened by climate change impacts and processes such as ocean acidification, ocean warming and sea level rise. Likewise, the obligation under Article 194(1) that States "shall endeavour to harmonise their policies" would also require States to make a good faith effort to negotiate with other States and participate in international fora, such as the UN Oceans Conference and the UNFCCC Ocean and Climate Change Dialogue which seek to promote more coordinated action to protect and preserve the marine environment from climate change impacts.

B. Article 197

66. Article 197 requires States to cooperate "in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment". As described in Chapter 4.II.B above, this enshrines the duty to cooperate, which comprises continuing obligations of conduct that must be carried out in good faith. In the climate change context, this means that States shall, in good faith and on a continuing basis, cooperate and participate in international normative processes with a view to establishing such rules, standards and recommended practices and procedures for the protection and preservation of the marine environment in relation to climate change impacts.

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[88] *Southern Bluefin Tuna (New Zealand v. Japan; Australia v. Japan), Provisional Measures, Order of 27 August 1999*, ITLOS Reports 1999, p. 280, at p. 295, para. 70. This was affirmed by the Tribunal in the *SRFC* Advisory Opinion at p. 37, para. 120.

[89] See analysis at Chapter 4.II.A above.

67. States accordingly have the obligation to participate in good faith in discussions under UNFCCC/Paris Agreement processes (such as at the annual Conferences of the Parties) with a view towards continually strengthening the rules, standards and recommended practices and procedures in matters such as the taking of adaptation measures in response to climate change impacts. These include discussions at the 58th SBSTA meeting on the Nairobi work programme on impacts, vulnerability and adaption to climate change and the Glasgow-Sharm el-Sheikh work programme on the global goal on adaptation. The obligation to participate in good faith would also extend to processes falling outside the UNFCCC/Paris Agreement regime such as future cooperative work upon becoming States Parties to the Agreement under UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction ("**BBNJ Agreement**")[90]. The BBNJ Agreement includes "vulnerability, including to climate change and ocean acidification" as one of the indicative criteria for the identification of areas for the establishment of area-based management tools.[91]

68. On the other hand, if a State persistently refuses to engage with other States in good faith on the formulation and elaboration of such international rules, standards and recommended practices in response to climate change impacts on the marine environment, its conduct would amount to a breach of this specific obligation.

C. Article 198

69. Article 198 provides that "[w]hen a State becomes aware of cases in which the marine environment is in imminent danger of being damaged or has been damaged by pollution, it shall immediately notify other States it deems likely to be affected by such damage, as well as the competent international organisations." In the context of climate change impacts, this means that States must notify other potentially affected States of imminent danger or damage to the marine environment arising from the deleterious effects of anthropogenic greenhouse gas emissions.

D. Article 202

70. Finally, Article 202 specifies States' obligations in relation to the provision of scientific and technical assistance to developing States for the protection and preservation of the marine

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[90] Draft agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction ("**Draft BBNJ Agreement**") (A/CONF.232/2023/CRP.2/Rev.2). At the time this written statement was submitted, the Draft BBNJ Agreement had yet to be adopted.

[91] See Article 19(4)(a) and (b), as well as Annex I, paragraph (f), of the final text of the Draft BBNJ Agreement.

environment. In the context of climate change impacts, the most pertinent obligation is for States to promote assistance programmes to developing States for the protection and preservation of the marine environment from climate change impacts, under Article 202(a).

CHAPTER 6

CONCLUSION

71. In summary, Singapore's submissions in response to the first question submitted to the Tribunal are as follows:

a. Pursuant to Article 194(1) and (2) of UNCLOS, States are obliged to give *bona fide* consideration to taking practicable measures within their capabilities to address anthropogenic greenhouse gas emissions of activities within their jurisdiction or control. Such consideration must encompass the adoption of appropriate rules, as well as enforcement and administrative control, tailored to the nature of the activity and the risk. States must apply the precautionary approach in determining the measures they take.

b. Under Articles 194(1), 197, 207(4) and 212(3), States are obliged to cooperate and participate, in good faith and on a continuing basis, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with UNCLOS, for the prevention, reduction and control of anthropogenic greenhouse gas emissions.

c. Under Article 194(1), States are also obliged to negotiate with other States in good faith to harmonise their national measures on the prevention, reduction and control of greenhouse gas emissions.

d. Under Article 200, States are obliged to participate in good faith in platforms that promote studies, undertake programmes of scientific research and encourage the exchange of information and data about anthropogenic greenhouse gas emissions and climate change.

e. Under Article 201, States are obliged to participate in good faith in platforms through which they can cooperate in establishing appropriate scientific criteria for the formulation of rules, standards and recommended practices and procedures

for the prevention, reduction and control of anthropogenic greenhouse gas emissions.

f. Under Article 202, States are obliged to promote assistance programmes to developing States for the prevention, reduction and control of anthropogenic greenhouse gas emissions.

g. Under paragraph 1 of Articles 207 and 212, States are obliged to adopt laws and regulations to prevent, reduce and control anthropogenic greenhouse gas emissions from land-based sources and from or through the atmosphere respectively. States shall act with due diligence in determining the content of such laws and regulations and shall take into account in good faith internationally agreed rules, standards and recommended practices and procedures such as those in the UNFCCC, the Paris Agreement and Annex VI of MARPOL.

h. Under paragraph 2 of Articles 207 and 212, States are required to give *bona fide* consideration to taking other practicable measures within their capabilities to address anthropogenic greenhouse gas emissions from land-based sources or from or through the atmosphere respectively resulting from activities within their jurisdiction or control. Such consideration must be tailored to the nature of the activity and the risk and be informed by the precautionary approach.

i. Under Articles 213 and 222, States are obliged to enforce the laws and regulations related to the prevention, reduction and control of anthropogenic greenhouse gas emissions adopted in accordance with Article 207 (on land-based pollution) and Article 212 (on pollution from and through the atmosphere) respectively. States are also obliged to implement applicable international rules and standards (whether through legislative or non-legislative measures), including the obligations under Article 4 of the Paris Agreement in the context of climate change.

72. Singapore's submissions in response to the second question submitted to the Tribunal are as follows:

a. The due diligence and good faith obligations in provisions which are focused on prevention, reduction and control of pollution of the marine environment, such as Article 194(1), extend to considering measures necessary to protect and preserve rare or fragile ecosystems and marine life threatened by climate change impacts and processes.

b. Under Article 194(1), States are obliged to negotiate with other States in good faith to harmonise their national measures on the protection and preservation of the marine environment in relation to climate change impacts.

c. Under Article 197, States are obliged to cooperate and participate, in good faith and on a continuing basis, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with UNCLOS, for the protection and preservation of the marine environment in relation to climate change impacts, including in matters such as the taking of adaptation measures.

d. Under Article 198, States are obliged to notify other potentially affected States of imminent danger or damage to the marine environment arising from the deleterious effects of anthropogenic greenhouse gas emissions.

e. Under Article 202, States are obliged to promote assistance programmes to developing States for the protection and preservation of the marine environment from climate change impacts.

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