INTERNATIONAL COURT OF JUSTICE

REQUEST BY THE UNITED NATIONS GENERAL ASSEMBLY FOR AN ADVISORY OPINION OF THE INTERNATIONAL COURT OF JUSTICE ON THE OBLIGATIONS OF STATES IN RESPECT OF CLIMATE CHANGE

WRITTEN STATEMENT OF THE REPUBLIC OF SINGAPORE

20 MARCH 2024

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List of Acronyms

CBDRRC-NC	The principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances
CMA	Conference of the Parties to the United Nations Framework Convention on Climate Change serving as the meeting of the Parties to the Paris Agreement
COP	Conference of the Parties to the United Nations Framework Convention on Climate Change
CRC	Convention on the Rights of the Child
GAIRS	Internationally agreed rules, standards and recommended practices and procedures
GHG	Greenhouse gas(es)
ICAO	International Civil Aviation Organization
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
ILC	International Law Commission
IMO	International Maritime Organization
IPCC	Intergovernmental Panel on Climate Change
ITLOS	International Tribunal for the Law of the Sea
MARPOL	International Convention for the Prevention of Pollution from Ships
NDCs	Nationally determined contributions
SBSTA	Subsidiary Body for Scientific and Technological Advice under the United Nations Framework Convention on Climate Change
SROCC	Special Report on the Ocean and Cryosphere in a Changing Climate by the Intergovernmental Panel on Climate Change
UDHR	Universal Declaration of Human Rights
UNCLOS	United Nations Convention on the Law of the Sea
UNFCCC	United Nations Framework Convention on Climate Change

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CHAPTER I
INTRODUCTION

A. Background to this Written Statement

1.1 Climate change is the defining crisis of our time. Like other small island developing States, Singapore is disproportionately vulnerable to the impacts of climate change. Singapore therefore joined a core group of United Nations Member States[1] that drafted and tabled the United Nations General Assembly ("**General Assembly**") resolution 77/276, which was adopted by consensus on 29 March 2023. Pursuant to resolution 77/276, the General Assembly makes a request to the International Court of Justice to advise on the following question (the "**Question**"):

> "Having particular regard to the Charter of the United Nations, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the United Nations Framework Convention on Climate Change, the Paris Agreement, the United Nations Convention on the Law of the Sea, the duty of due diligence, the rights recognized in the Universal Declaration of Human Rights, the principle of prevention of significant harm to the environment and the duty to protect and preserve the marine environment,
>
> (a) What are the obligations of States under international law to ensure the protection of the climate system and

[1] Apart from Singapore, the core group of Member States comprised Angola, Antigua & Barbuda, Bangladesh, Costa Rica, Germany, Liechtenstein, the Federated States of Micronesia, Morocco, Mozambique, New Zealand, Portugal, Romania, Samoa, Sierra Leone, Uganda, Viet Nam and Vanuatu.

other parts of the environment from anthropogenic emissions of greenhouse gases for States and for present and future generations;

(b) What are the legal consequences under these obligations for States where they, by their acts and omissions, have caused significant harm to the climate system and other parts of the environment, with respect to:

(i) States, including, in particular, small island developing States, which due to their geographical circumstances and level of development, are injured or specially affected by or are particularly vulnerable to the adverse effects of climate change?

(ii) Peoples and individuals of the present and future generations affected by the adverse effects of climate change?"[2]

1.2 On 20 April 2023, the President of the Court issued an order fixing 20 October 2023 as the time-limit within which written statements on the Question may be presented to it and 22 January 2024 as the time-limit within which States and organisations having presented written statements may submit written comments on the other written statements.

1.3 On 4 August 2023, the President of the Court issued an order extending to 22 January 2024 the time-limit within which all written statements on the Question may be presented to the Court, and extending to 22 April 2024 the time-limit within which States and organisations having presented written statements may submit written comments on the other written statements.

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[2] General Assembly resolution 77/276, "Request for an advisory opinion of the International Court of Justice on the obligations of States in respect of climate change", adopted on 29 March 2023.

1.4 On 15 December 2023, the President of the Court issued another order extending to 22 March 2024 the time-limit within which all written statements on the Question may be presented to the Court, and extending to 24 June 2024 the time-limit within which States and organisations having presented written statements may submit written comments on the other written statements.

B. Singapore's Participation in these Advisory Proceedings

1.5 Singapore fully supported General Assembly resolution 77/276. The request for an advisory opinion on the climate change obligations of States is timely. The recently released Sixth Assessment Report of the Intergovernmental Panel on Climate Change ("**IPCC**") makes it abundantly clear that there is an urgent need to accelerate and raise the level of climate action.

1.6 The overall impact of greenhouse gas ("**GHG**") emissions on the climate system and other parts of the environment is demonstrated by the scientific evidence set out in the reports of the IPCC. The IPCC is a body of the United Nations established to provide internationally coordinated scientific assessments concerning climate change; it comprises 195 member governments[3]. It is widely regarded as authoritative on climate science[4] and its reports are robust, objective and based on the collective assessment of scientists from across the world. IPCC reports point out that anthropogenic GHG emissions are unequivocally the dominant cause of climate change, the adverse

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[3] See World Meteorological Organization, resolution 4 (EC-XL) of 1988; General Assembly resolution 43/53 of 6 December 1988 on "Protection of global climate for present and future generations of mankind"; see also, "About the IPCC", available at <http://ipcc.ch/about>, last accessed: 7 March 2024.

[4] See, *eg*, Decision 5/CP.13 of the Conference of the Parties to the United Nations Framework Convention on Climate Change ("**COP**"), 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 COP, at para. 160(a), which refers to the IPCC assessment reports as the "best available scientific knowledge".

effects of which have been widespread and have caused damage to nature and harm to people.

C. Summary of Singapore's Submissions in this Written Statement

1.7 In this written statement, Singapore submits in Chapter II that the Court has competence to issue the requested advisory opinion and there are no compelling grounds for the Court to decline to do so. Singapore then sets out its views on the first and second parts of the Question in Chapters III and IV respectively.

1.8 Part (a) of the Question asks what the obligations of States are "to ensure the protection of the climate system and other parts of the environment from anthropogenic emissions of greenhouse gases for States and for present and future generations" with specific reference to the treaties and legal principles in the preamble of the Question. Chapter III of this written statement first identifies and analyses, in Section A, the pertinent obligations of States under customary international law to exercise due diligence and to cooperate to prevent significant transboundary environmental harm. The discharge of these customary international law obligations of due diligence and cooperation is informed by compliance with the international rules and standards developed by States to address specific issues. These include, in particular, the obligations of States Parties under the United Nations Framework Convention on Climate Change[5] ("**UNFCCC**") and Paris Agreement[6], as the primary international, intergovernmental platforms for developing a global response to climate change. This is covered in Section B.

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5 United Nations, *Treaty Series*, vol. 1771, p. 107.

6 United Nations, *Treaty Series*, vol. 3156, p. 79.

1.9 Legal obligations relating to climate change arise under other specialised legal regimes, in particular, the United Nations Convention on the Law of the Sea[7] ("**UNCLOS**") in relation to the protection and preservation of the marine environment, which is covered in Section C, and international human rights law, which is covered in Section D.

1.10 The answer to part (b) of the Question is in Chapter IV, focusing on the legal consequences arising from a breach of the obligations identified in Chapter III that has caused "significant harm to the climate system and other parts of the environment". Singapore considers that the customary international law rules on State responsibility apply to determine the existence and content of responsibility of a State for any breaches of obligations under customary international law, as well as under the UNFCCC and Paris Agreement, UNCLOS, and applicable human rights treaties.

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[7] United Nations, *Treaty Series*, vol. 1833, p. 3.

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CHAPTER II
OBSERVATIONS ON JURISDICTION AND ADMISSIBILITY

2.1 There was overwhelming support for the General Assembly to request the Court to render an advisory opinion in these proceedings pursuant to Article 96(1) of the Charter of the United Nations ("**United Nations Charter**") and Article 65(1) of the Statute of the International Court of Justice[8]. However, the request must nonetheless be one which falls within the jurisdiction of the Court and which is admissible.

2.2 Singapore therefore considers it useful to elaborate on the principles regarding the *exercise* of advisory jurisdiction by the Court, and the circumstances in which the Court's discretion to refuse to give an advisory opinion is engaged.

2.3 The Court should not refuse a request for an advisory opinion except for compelling reasons[9]. However, 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[10]. Should compelling reasons exist, the Court 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[11].

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8 General Assembly resolution 77/276 was co-sponsored by 132 United Nations Member States and adopted by consensus.

9 See *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; see also, *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.

10 See *Nuclear Weapons Advisory Opinion*, p. 235, para. 14; *Wall Advisory Opinion*, p. 157, para. 45.

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

2.4 Singapore considers that the following scenarios would give rise to compelling reasons for the Court to refuse a request for an advisory opinion, but they do not apply to the present request.

(*a*) First, where the advisory opinion would have the effect of obliging a State to submit its disputes for judicial settlement without the State's consent[12]. 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 by the Court to the existence or lack of consent from those States when deciding whether or not to exercise advisory jurisdiction. To Singapore's knowledge, the Question posed by the General Assembly does not relate closely to any specific existing dispute between particular States.

(*b*) Second, where there is insufficient information and evidence to arrive at a judicial conclusion upon any disputed question of fact[13]. 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[14]. If the Court finds itself in such a situation, judicial propriety behoves it to reject the request[15]. Doing so would also minimise the risk of the Court tying its hands in future contentious proceedings or vitiating its findings from the advisory proceedings, and thus safeguard its judicial function. In the present proceedings, there is sufficient information and evidence, in particular in the reports of the

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12 See *Western Sahara Advisory Opinion*, p. 25, para. 33.

13 See *Western Sahara Advisory Opinion*, pp. 28–29, para. 46.

14 See *Status of Eastern Carelia, P.C.I.J. Series B, No. 5* ("***Status of Eastern Carelia***"), at p. 28.

15 See *Western Sahara Advisory Opinion*, pp. 28–29, para. 46; see also, *Status of Eastern Carelia*, p. 28.

IPCC, such as the Climate Change 2023 Synthesis Report[16] and Special Report on the Ocean and Cryosphere in a Changing Climate ("**SROCC**")[17], to enable the Court to make the necessary findings to provide an advisory opinion.

(*c*) Third, if answering the question posed would go beyond the Court's judicial role in stating and applying the existing law, and require the Court to take upon itself a law-making capacity[18]. In Singapore's view, the questions posed in the present proceedings — which concern "the obligations of States under international law" and "the legal consequences under these obligations" when significant harm is caused — are both legal questions on *lex lata* concerning the interpretation and application of various existing treaties and principles of customary international law rather than the making of new law.

2.5 Moreover, this is a request made in good faith concerning climate change impacts, which have been recognised as "a common concern of humankind"[19].

2.6 For the foregoing reasons, Singapore takes the view that there are no compelling reasons that should lead the Court to exercise its discretion not to render an advisory opinion on the present Question posed by the General Assembly.

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16 IPCC, 2023: *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the IPCC* [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, 184 pp ("**IPCC Climate Change 2023 Synthesis Report**").

17 IPCC, 2019: *IPCC Special Report on the Ocean and Cryosphere in a Changing* Climate [H.-O. Pörtner, D. C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, 755 pp ("**SROCC**").

18 See *Nuclear Weapons Advisory Opinion*, pp. 237–238, paras. 18–19.

19 UNFCCC, preamble, first paragraph.

2.7 Given the gravity and importance of the Question before the Court, Singapore has prepared the following submissions to assist the Court in answering it.

CHAPTER III
OBLIGATIONS OF STATES TO ENSURE THE PROTECTION OF THE CLIMATE SYSTEM AND OTHER PARTS OF THE ENVIRONMENT FROM ANTHROPOGENIC EMISSIONS OF GREENHOUSE GASES FOR STATES AND FOR PRESENT AND FUTURE GENERATIONS

A. The Customary International Law Obligation to Prevent Significant Transboundary Environmental Harm

3.1 The customary international law obligation with respect to the prevention of environmental harm has been developed in the jurisprudence of international courts and tribunals tracing back to the 1941 *Trail Smelter* case. In that case, the arbitral tribunal held that "no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence."[20] The Court has further clarified that the customary international law rule imposes an "obligation to exercise due diligence in preventing significant transboundary environmental harm"[21], or in other words, that "[a] State is… 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"[22]. The Court has also referred to this obligation as a "customary rule" of "the principle of prevention"[23]. This obligation extends

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20 *Trail Smelter case (United States, Canada),* Reports of International Arbitral Awards, 16 April 1938 and 11 March 1941, Volume III, pp. 1905–1982, at p. 1965.

21 *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica* v. *Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua* v. *Costa Rica), Judgment, I.C.J. Reports 2015,* p. 665 ("***Certain Activities***"), at p. 706, para. 104.

22 *Dispute over the Status and Use of the Waters of the Silala (Chile* v. *Bolivia), Judgment, I.C.J. Reports 2022,* p. 614, at p. 648, para. 99; *Certain Activities,* p. 711, para. 118; and *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay), Judgment, I.C.J. Reports 2010,* p. 14 ("***Pulp Mills***"), at p. 56, para. 101.

23 *Pulp Mills,* p. 55, para. 101.

to significant environmental harm caused to areas beyond national control[24]. The Court has also re-affirmed in several cases that this obligation "is now part of the corpus of international law relating to the environment"[25].

3.2 The Court has further recognised that cooperation is "necessary in order to fulfil the [customary international law] obligation of prevention"[26]. In the context of the prevention of pollution of the marine environment, the International Tribunal for the Law of the Sea ("**ITLOS**") has affirmed that "the duty to cooperate is a fundamental principle in the prevention of pollution of the marine environment under Part XII of [UNCLOS] and general international law"[27]. This obligation to cooperate, as part of the customary obligation of prevention, has played an important role in the development and implementation of environmental law regimes[28].

3.3 This Section will set out, first, the standard of due diligence under the customary international law obligation to prevent significant transboundary environmental harm and its application in the context of climate change, and second, the obligation to cooperate as part of the customary international law obligation to prevent significant transboundary environmental harm and its application in the context of climate change. Singapore will submit that the requisite due diligence and cooperation of a State, to fulfil its customary international law obligation to

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24 See *Nuclear Weapons Advisory Opinion*, pp. 241–242, para. 29.

25 *Nuclear Weapons Advisory Opinion*, p. 242, para. 29; *Pulp Mills*, p. 55, para. 101.

26 *Pulp Mills*, p. 56, para. 102.

27 *MOX Plant (Ireland* v. *United Kingdom), Provisional Measures, Order of 3 December 2001, ITLOS Reports 2001*, p. 95 ("***MOX Plant***"), at p. 110, para. 82; *Land Reclamation in and around the Straits of Johor (Malaysia* v. *Singapore), Provisional Measures, Order of 8 October 2003, ITLOS Reports 2003*, p. 10, at p. 25, para. 92; *Delimitation of the Maritime Boundary in the Atlantic Ocean (Ghana/Côte d'Ivoire), Provisional Measures, Order of 25 April 2015, ITLOS Reports 2015*, p. 146, at p. 160, para. 73.

28 See Rüdiger Wolfrum: Cooperation, International Law of (in: *Max Planck Encyclopedias of International Law*, 2010, April), para. 28.

prevent significant transboundary environmental harm in the climate change context, is informed by full participation in collective efforts by the international community to address anthropogenic GHG emissions.

1. THE STANDARD OF DUE DILIGENCE

3.4 The obligation to prevent significant transboundary environmental harm is one of due diligence; as such, it is an obligation of conduct and not of result[29]. As the International Law Commission ("**ILC**") in its commentary on draft Article 3 of its 2001 Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities pointed out:

> "It is the conduct of the State of origin [of the harm] that will determine whether the State has complied with its obligation under the present articles. The duty of due diligence involved, however, is not intended to guarantee that significant harm be totally prevented, if it is not possible to do so. In that eventuality, the State of origin is required, as noted above, to exert its best possible efforts to minimize the risk. In this sense, it does not guarantee that the harm would not occur."[30]

3.5 In the words of the Seabed Disputes Chamber of the International Triunal for the Law of the Sea ("**ITLOS 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."[31] It follows that a State has not breached an obligation of this character (even when actual damage may have occurred), as long as it has taken all reasonable

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29 See ILC Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities, with commentaries, United Nations Doc. A/56/10 (2001) ("**ILC Draft Articles on Transboundary Harm**"), Article 3, Commentary, para. 7.

30 *Ibid.*

31 *Responsibilities and Obligations of States with Respect to Activities in the Area, Advisory Opinion, 1 February 2011, ITLOS Reports 2011*, p. 10 ("***Activities in the Area Advisory Opinion***"), at p. 41, para. 110.

measures to prevent foreseeable damage. Such conduct "entails not only the adoption of appropriate rules and measures, but also a certain level of vigilance in their enforcement and the exercise of administrative control applicable to public and private operators"[32].

3.6 The assessment of whether a State has satisfied its due diligence obligation to prevent significant transboundary environmental harm is context-specific and accommodates a margin of State discretion. In the *Activities in the Area Advisory Opinion*, the ITLOS Seabed Disputes Chamber described due diligence obligations as a "variable concept"[33]. There is therefore no general, bright line standard of conduct that States must follow in order to discharge this obligation[34]. However, several factors have been identified as relevant to determining the content of due diligence under international law.

3.7 First, the nature of the activity and the risk it entails 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[35]. As the ILC noted, "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."[36] 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[37]. In a similar vein, the ITLOS Seabed Disputes Chamber highlighted

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32 *Pulp Mills*, p. 79, para. 197.

33 *Activities in the Area Advisory Opinion*, p. 43, para. 117.

34 See Timo Koivurova and Krittika Singh: Due Diligence (in: *Max Planck Encyclopedias of International Law*, 2022, August), para. 4.

35 See *Activities in the Area Advisory Opinion*, p. 43, para. 117.

36 ILC Draft Articles on Transboundary Harm, Article 3, Commentary, para. 11.

37 *Ibid.*

that activities in the Area concerning different kinds of minerals may require "different standards of diligence" depending on the risks involved[38].

3.8 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 progress[39]. Hence, in *Pulp Mills*, the Court observed that due diligence entails "a careful consideration of the technology to be used" in respect of the activity[40]. A further implication identified by the ITLOS 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[41].

3.9 Third, the individual capacities, capabilities and constraints of a State would also be relevant in determining the content of the due diligence obligation. This flows from the due diligence obligation being "an obligation to deploy adequate means, to exercise best possible efforts, to do the utmost, to obtain this result."[42] What would amount to adequate means, best possible efforts and doing the utmost will vary according to the capacities, capabilities and constraints of a State. 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[43].

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38 *Activities in the Area Advisory Opinion*, p. 43, para. 117.

39 *Ibid.*

40 *Pulp Mills*, pp. 88–89, para. 223.

41 *Activities in the Area Advisory Opinion*, p. 69, para. 222.

42 *Activities in the Area Advisory Opinion*, p. 41, para. 110.

43 See UNFCCC, Articles 3(1) and 4(1), as well as the Paris Agreement, Article 2(2). See also, *eg*, Paris Agreement, Articles 3 and 4(3)–(6).

3.10 Applying the precautionary approach is also a relevant factor in meeting a State's customary international law obligation of due diligence with respect to significant transboundary environmental harm. 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[44]. For example, although there remain limitations in scientific knowledge about climate change impacts on animal and livestock health and productivity[45], this should not be a justification for ignoring the risks to animal and livestock 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.

3.11 Finally, internationally agreed rules and standards may also inform the content of the customary international law obligation with respect to significant transboundary environmental harm. A State must take into account what the international community as a whole regards as norms and best practices in preventing significant transboundary environmental harm. In the *Pulp Mills* case, the Court was persuaded that Uruguay had satisfied 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) by its compliance with the relevant standards in the pulp and paper industry[46].

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44 See *Activities in the Area Advisory Opinion*, p. 46, para. 131.

45 See, *eg*, IPCC Climate Change 2023 Synthesis Report, pp. 7 and 49.

46 See *Pulp Mills*, p. 90, paras. 224 and 228; and p. 99, para. 255. Similarly, in *MOX Plant*, the United Kingdom argued that it had fully complied with the relevant international standards established by the International Atomic Energy Agency (*MOX Plant*, Written Response of the United Kingdom, 15 November 2001, p. 377, para. 33), but this point was never decided for jurisdictional reasons.

Singapore submits that this is in line with the barometer of "reasonableness"[47] that undergirds the concept of due diligence.

2. Application of the Due Diligence Standard to Climate Change

3.12 As seen in the above summary of the development of the customary international law obligation with respect to the prevention of significant transboundary environmental harm, international courts and tribunals have only examined and applied this customary international law rule in cases where an individual State has caused harm to another State or to the global commons. The customary international law rule has not yet been applied in the climate change context.

3.13 It will usually be difficult to define precisely and *in vacuo* the content of an individual State's customary international law obligation to exercise due diligence to prevent significant transboundary environmental harm from anthropogenic GHG emissions to the climate system and other aspects of the environment. Commentators have noted that customary rules of international environmental law are "too open-textured to allow for the finely calibrated and wide-ranging response actions required to tackle climate change"[48] and are unable to provide precise guidance on how States should conduct themselves in order to mitigate this complex problem in most circumstances. Singapore acknowledges these challenges but would point out that the factors outlined in paragraphs 3.7 to 3.11 above are nonetheless helpful in informing the content of each State's customary international law due diligence obligation in the climate change context.

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47 *Activities in the Area Advisory Opinion*, p. 71, para. 230.

48 Daniel Bodansky, Jutta Brunnée, Lavanya Rajamani: Climate Change and International Law (in: Daniel Bodansky, Jutta Brunnée, Lavanya Rajamani, *International Climate Change Law* (Oxford University Press, 2017) ("***International Climate Change Law***")), Chapter 2, p. 69.

3.14 First, with respect to the nature of the activity or activities in question, it is conceivable that a particular act within the territory of a State may result in GHG emissions on such a large scale that a direct causal link to adverse climate effects can be established, and in such a situation, that State is clearly obliged to do its utmost to curb that act.

3.15 However, for the most part, the nature of anthropogenic GHG emissions released into the Earth's atmosphere means that the resulting impacts are necessarily diffuse. It will be difficult to establish with sufficient probability that a particular adverse event or impact on a specific geographical area or aspect of the climate system was attributable to specific anthropogenic GHG emissions from any specific State[49]. Unlike other examples of significant transboundary environmental harm, which typically involve discharges of harmful substances into the territory of neighbouring States or shared resources, each instance of anthropogenic emission of GHG may not on its own cause significant deleterious effects, especially when GHG naturally exist in the Earth's atmosphere. Instead, the harm in this context is caused by the cumulative impact of global anthropogenic GHG emissions.

3.16 Second, as regards scientific knowledge, humankind's understanding of the causes and effects of climate change continues to evolve. The current scientific evidence, as reflected in successive IPCC reports, is that overall global anthropogenic GHG emissions unequivocally constitute the dominant cause of climate change and if the long-term global temperature goal of the Paris Agreement is not met, the environmental impacts which would occur are severe. This body of scientific evidence must inform the measures that States would be required to take in order to fulfil the customary international law due diligence obligation.

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[49] See Daniel Bodansky, Jutta Brunnée, Lavanya Rajamani: Climate Change and International Law (in: *International Climate Change Law*), Chapter 2, p. 45.

3.17 Third, as regards the risks, the scientific evidence also unequivocally demonstrates the widespread and serious losses and damages to nature and people resulting from the effects of climate change. The available scientific evidence therefore establishes that these adverse effects constitute significant transboundary environmental harm within the meaning of the customary international law obligation. Even if there are limitations in the scientific knowledge about climate change impacts on certain environments and components, applying the precautionary approach requires a State not to disregard plausible indications of particular adverse effects.

3.18 Fourth, each State must deploy adequate means, exercise best possible efforts and do its utmost to address the problem of anthropogenic GHG emissions, taking into consideration its individual capacities, capabilities, and constraints.

3.19 From the foregoing analysis, the content of the customary international law obligation of due diligence that arises from the second, third and fourth factors is evident. As for the first factor, the fact that the harm is caused by the cumulative impact of global anthropogenic GHG emissions and the seriousness of its effects mean that a global and collective response having regard to the prevailing scientific knowledge and technology is required in which every State must do its part. Singapore therefore considers that the discharge by States of their customary international law obligation of due diligence in the context of climate change must be informed by their full participation in collective efforts by the international community to address anthropogenic GHG emissions, and, in particular, the treaties which are the outcome of these collective efforts.

3.20 The discharge of the customary international law obligation of due diligence in the context of climate change will therefore be primarily informed by States' compliance with their obligations under the UNFCCC and Paris Agreement, as well as other relevant international treaties. Both the UNFCCC and Paris Agreement set out specialised rules which aim to achieve the "stabilization of [GHG] concentrations in the atmosphere at a level that would prevent dangerous

anthropogenic interference with the climate system"[50] and "reach global peaking of [GHG] emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of [GHG]"[51] (see further, Chapter III, Section B, below). Similar obligations and standards of conduct are specified in Annex VI to the International Convention for the Prevention of Pollution from Ships ("**MARPOL**") (see further, Chapter III, Section C, below).

3. The Duty to Cooperate to Prevent Significant Transboundary Environmental Harm in the Climate Change Context

3.21 As observed in paragraph 3.2 above, the Court has recognised that cooperation is a necessary part of the customary international law obligation to prevent significant transboundary environmental harm. In *Pulp Mills*, the Court considered that an obligation of notification under a bilateral treaty allowed for "the initiation of cooperation between the Parties which is *necessary* in order to fulfil the [customary international law] obligation of prevention" [emphasis added][52]. The duty to cooperate is not limited to procedural duties of notification and consultation. As recognised in Principle 7 of the Rio Declaration on Environment and Development[53], "States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem". The IPCC has also noted the role of international cooperation as a critical enabler for achieving ambitious climate action and

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50 UNFCCC, Article 2.

51 Paris Agreement, Article 4(1).

52 *Pulp Mills*, pp. 55–56, paras. 101–102.

53 Rio Declaration on Environment and Development, 14 June 1992, United Nations Doc. A/CONF.151/26/Rev.1 (Vol. I), Annex II (1992).

encouraging development and implementation of climate policies[54]. This duty to cooperate has important implications for States' conduct in processes to develop substantive rules and commitments to advance the global response to climate change.

3.22 A few general points regarding the duty to cooperate and its application in the climate change context should be made at the outset:

(*a*) First, similar to due diligence, the duty to cooperate is an "obligation of conduct". It generally does not require a particular substantive outcome as the result of cooperation, although the outcomes of such cooperation can shed light on the extent to which a State has fulfilled its obligation to cooperate (see further, paragraph 3.23 below).

(*b*) Second, the duty to cooperate is of a continuing nature and generally cannot be satisfied by a one-time act. It is also worth noting that in the context of preventing significant transboundary environmental harm, the duty to cooperate "extends to all phases of planning and of implementation" of a State's policies[55].

(*c*) Third, the basic principle of good faith is integral to the obligation to cooperate[56]. Specifically, where the search for a solution necessitates the

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54 See IPCC Climate Change 2023 Synthesis Report, Section 4.8.2; see also, Decision - /CMA.5, "Outcome of the first global stocktake", Advance unedited version ("**Outcome of the first global stocktake**"), para. 155.

55 ILC Draft Articles on Transboundary Harm, Article 4, Commentary, para. 1.

56 See *Nuclear Tests (Australia* v. *France), Judgment, I.C.J. Reports 1974*, p. 253, at p. 268, para 46.

cooperation of all States[57], as is the case with climate change[58], the duty to cooperate requires States concerned to consult and negotiate in good faith with potentially affected States on activities that may have a significant adverse transboundary environmental effect[59], with a view to achieving acceptable solutions[60].

(*d*) Fourth, with respect to multilateral treaties having the character of framework agreements, which set out mechanisms to progressively develop substantive commitments, the obligation of parties to the treaty to cooperate extends to formulating and elaborating these commitments and continuing cooperation necessary for the implementation of these commitments. The UNFCCC is a clear example of such a treaty, and the Paris Agreement was concluded under it. The UNFCCC and Paris Agreement constitute the primary international, intergovernmental platforms for negotiating a global response to climate change[61], whose effectiveness depends upon the continuing cooperation among their

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57 As was the case in negotiations for nuclear disarmament: see *Nuclear Weapons Advisory Opinion*, p. 264, para. 100.

58 See the General Assembly resolutions on "Protection of global climate for present and future generations of humankind", adopted without a vote, including resolution 78/153, adopted on 19 December 2023, recognising in the preamble that "the global nature of climate change calls for the widest possible international cooperation aimed at accelerating the reduction of global greenhouse gas emissions and addressing adaptation to the adverse impacts of climate change"; see also, UNFCCC, preamble, sixth paragraph.

59 See Rio Declaration on Environment and Development, Principle 19.

60 See ILC Draft Articles on Transboundary Harm, Article 9, Commentary, para. 3; *Gabčíkovo-Nagymaros Project (Hungary/Slovakia), Judgment, I.C.J. Reports 1997*, p. 7 ("***Gabčíkovo-Nagymaros Project***"), at p. 78, para. 141; and *North Sea Continental Shelf, Judgment, I.C.J. Reports 1969*, p. 3 ("***North Sea Continental Shelf***"), at pp. 46–47, para. 85.

61 This is repeatedly acknowledged in General Assembly resolutions on the "Protection of global climate for present and future generations of humankind", including the latest resolution 78/153, adopted on 19 December 2023, preamble, second paragraph.

Parties[62], as underscored in the outcome of the inaugural global stocktake under the Paris Agreement[63].

3.23 While activities producing GHG emissions might not on their own be prohibited by international law, the inadequate regulation of the levels of GHG emissions by a State would exacerbate, and hinder global efforts to mitigate, the significant adverse effects of climate change. The application of the obligation to cooperate on activities producing GHG emissions must therefore involve consultations with other States "with a view to achieving acceptable solutions"[64], taking account of the fact that such activities may be important for the economic development of the State where the activities occur, but would cause undue harm to other States if conducted without appropriate preventive measures. The purpose of consultations is also not entirely open-ended, and the obligation to consult must not be limited to going through the motions without a genuine intention of arriving at an acceptable solution. There is an obligation to achieve a precise result of arriving at a mutually acceptable solution, taking account of the legitimate interests of the States concerned, through the pursuit of consultations[65].

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62 See Rüdiger Wolfrum: Cooperation, International Law of (in: *Max Planck Encyclopedia of International Law*, 2010, April), paras. 30 and 31.

63 In the outcome of the inaugural global stocktake under the Paris Agreement, Parties and non-Party stakeholders were encouraged to enhance cooperation on the implementation of multilateral environmental conventions and agreements to facilitate the achievement of the purpose and long-term goals of the Paris Agreement and the Sustainable Development Goals. Parties also recognised the importance of international collaboration for contributing to progress towards the goals of the Paris Agreement, reaffirmed the commitment to multilateralism and resolved to remain united in the pursuit of efforts to achieve the purpose and long-term goals of the Agreement. See Outcome of the first global stocktake, paras. 153, 156 and 163.

64 ILC Draft Articles on Transboundary Harm, Article 9.

65 See *Gabčíkovo-Nagymaros Project*, p. 78, para. 141; *North Sea Continental Shelf*, pp. 46–47, para. 85; and *Nuclear Weapons Advisory Opinion*, pp. 263–265, paras. 99–103.

3.24 Climate change has been the subject of continuous negotiations among States over the last three decades, resulting in the UNFCCC and the agreements[66] and decisions thereunder, as well as other parallel and complementary efforts led by the International Civil Aviation Organization ("**ICAO**")[67] and the International Maritime Organization ("**IMO**")[68] to address emissions from international aviation and shipping respectively.

3.25 The Paris Agreement reflects virtual consensus among States of the long-term trajectory to manage the risks associated with climate change, along a pathway towards low GHG emissions and climate-resilient development that depends upon (among others) international cooperation, and is anchored within sustainable development and efforts to eradicate poverty. The cooperative processes under the Paris Agreement include the Article 6.4 mechanism for international carbon crediting, international support to developing country Parties on adaptation (Article 7), the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts (Article 8) to enhance understanding, action and support on loss and damage, the Technology Mechanism for technology development and transfer (Article 10), and mechanisms to review progress in implementation of the Agreement such as the global stocktake (Article 14) and the enhanced transparency framework (Article 13).

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66 Kyoto Protocol to the UNFCCC (United Nations, *Treaty Series*, vol. 2303, p. 162); Paris Agreement.

67 The ICAO Assembly at its 41st session in 2022 adopted a long-term global aspirational goal for international aviation of net-zero carbon emissions by 2050 in support of the Paris Agreement's long-term global temperature goal, and envisages that States will cooperate through ICAO to achieve aviation emissions reduction objectives. See ICAO Assembly Resolution A41-21: Consolidated Statement of continuing ICAO policies and practices related to environmental protection – Climate change.

68 The IMO and its Marine Environment Protection Committee have adopted non-binding instruments addressing cooperation in the reduction of GHG emissions from ships, including IMO Resolution MEPC.377(80), "2023 IMO Strategy on Reduction of GHG Emissions from Ships", adopted on 7 July 2023.

3.26 To fulfil the customary international law obligation to cooperate to address climate change, States must participate in good faith in all the relevant international cooperative processes. These include those of the Paris Agreement as well as the sector-specific processes led by ICAO and IMO to develop global approaches to reducing international transport emissions. States must conduct themselves so that negotiations are meaningful and done in a manner to achieve a precise result, namely, an international solution on climate change.

B. UNFCCC and Paris Agreement Regime

3.27 The UNFCCC and Paris Agreement regime forms the core of international law on climate change[69]. The UNFCCC lays the foundation and governance structure for this regime, while the Paris Agreement is the most recent treaty adopted under the auspices of the UNFCCC to enhance its implementation and strengthen the global response to the threat of climate change[70]. Singapore in this written statement will focus on the obligations on States as set out in the Paris Agreement.

1. Obligations under the Paris Agreement – General Observations

3.28 The Paris Agreement was adopted "in pursuit of the objective of the [UNFCCC]", as set out in Article 2 of the UNFCCC, namely, "to achieve … stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".

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69 See Daniel Bodansky, Jutta Brunnée, Lavanya Rajamani: Introduction (in: *International Climate Change Law*), Chapter 1, p. 10.

70 See Article 2(1) of the Paris Agreement. See also, Daniel Bodansky, Brunnée, Lavanya Rajamani: The Framework Convention on Climate Change (in: *International Climate Change Law*), Chapter 5, p. 118.

3.29 While the Paris Agreement as a whole is a legally binding treaty, its provisions vary in the extent to which they establish legally binding obligations on States. Provisions which use operative words like "shall" or "are to" and place Parties as the subject of the obligation are legally binding on the Parties[71]. In view of the Question before this Court, this written statement will focus only on the key legally binding obligations that are placed on States in relation to the "protection of the climate system and other parts of the environment from anthropogenic emissions of greenhouse gases". These key obligations are contained in Articles 4 (on mitigation), 7 (on adaptation), 9 (on climate finance), 10 (on technology transfer), 11 (on capacity building) and 13 (on transparency). Pursuant to Article 3 of the Paris Agreement, Parties "are to" implement their obligations under the aforementioned articles "with a view to achieving the purpose of the Agreement as set out in Article 2". Before going into detail about these legally binding obligations, this written statement will first provide a few general observations about the Paris Agreement to set the context of these obligations.

3.30 First, the Paris Agreement is a global agreement which sets the long-term temperature goal for all Parties to meet collectively. The long-term global temperature goal is set out in Article 2(1)(a) as "[h]olding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels"[72].

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71 See Ralph Bodle, Sebastian Oberthür: Legal Form of Paris Agreement and Nature of Its Obligations (in: Daniel Klein, María Pía Carazo, Meinhard Doelle, Jane Bulmer and Andrew Higham (eds.), *The Paris Agreement on Climate Change: Analysis and Commentary* (Oxford University Press, 2017) ("***The Paris Agreement: Analysis and Commentary***")), Part I, Chapter 5, pp. 97–102; and Daniel Bodansky, Jutta Brunnée, Lavanya Rajamani: Paris Agreement (in: *International Climate Change Law*), Chapter 7, p. 218 and Table 7.1 on p. 250.

72 The COP serving as the meeting of the Parties to the Paris Agreement ("**CMA**") most recently in Outcome of the first global stocktake, paras. 3–4, expressly reaffirmed this long-term global temperature goal and underscored that "the impacts of climate change will be much lower at the temperature increase of 1.5°C compared with 2°C".

3.31 The long-term global temperature goal is one of the modalities set out in Article 2 of the Paris Agreement by which the Agreement aims to strengthen the global response to the threat of climate change. The other modalities are: climate adaptation (see Article 2(1)(b)); finance flows (see Article 2(1)(c)); and implementing the Agreement to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances ("**CBDRRC-NC**") (see Article 2(2)). Collectively, these represent the "purpose"[73] of the Paris Agreement referred to in Article 3 of the Agreement, and under Article 3, Parties "are to" undertake and communicate specific efforts in the thematic areas of mitigation, adaptation, finance, technology, capacity-building, and transparency "with the view to achieving" this purpose[74].

3.32 Second, in order for this purpose to be achieved, the Paris Agreement adopts a bottom-up approach that allows Parties to determine the substance of their respective mitigation and adaptation actions[75]. However, the Paris Agreement also promotes ambition in each Party's actions through an "ambition cycle"[76] with reporting and transparency requirements as well as processes like the submission of successive nationally determined contributions ("**NDCs**") under Article 4(2) and the global stocktake referred to in Article 14. Under Article 14, the Conference of the Parties to the UNFCCC ("**COP**") serving as the meeting of the Parties to the Paris Agreement ("**CMA**") shall take stock of the

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73 Paris Agreement, Article 3.

74 *Ibid*. See also, Ralph Bodle, Sebastian Oberthür: Legal Form of Paris Agreement and Nature of Its Obligations (in: *The Paris Agreement: Analysis and Commentary*), Part I, Chapter 5, p. 95.

75 See Daniel Bodansky: Paris Agreement (in: United Nations Audiovisual Library of International Law, 2021).

76 Daniel Bodansky, Jutta Brunnée, Lavanya Rajamani: Paris Agreement (in: *International Climate Change Law*), Chapter 7, p. 235. See also, Lavanya Rajamani and Daniel Bodansky: The Paris Rulebook: Balancing International Prescriptiveness with National Discretion (in: *International and Comparative Law Quarterly*, 2019, vol. 68, pp. 1023–1040), at pp. 1025–1026.

implementation of the Paris Agreement to assess the collective progress towards achieving the purpose of the Agreement.

3.33 Third, the CBDRRC-NC principle is a cornerstone of the Paris Agreement. It builds upon the balance of responsibilities established in the UNFCCC, which acknowledged that the largest share of historical and current global emissions originated in developed countries[77], and that the developed country Parties should take the lead in combating climate change and its adverse effects[78]. The CBDRRC-NC principle also recognises that Parties have different capabilities and are constrained by different national circumstances while addressing climate change. In this regard, while the Paris Agreement establishes common obligations for all Parties, it imposes additional obligations on developed country Parties[79], and gives explicit recognition to the special circumstances of the least developed countries and small island developing States[80]. While the CBDRRC-NC principle has not been defined in the Paris Agreement, Singapore is of the view that the following considerations are relevant to determining its application:

(*a*) a State's "share of historical and current global emissions"[81];

(*b*) a holistic assessment of a State's capabilities and national circumstances, including relevant vulnerabilities and constraints, and the need for international cooperation. In Singapore's view, these include physical constraints (*eg*, size and natural resources), and access to alternative energy sources.

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77 See UNFCCC, preamble, third paragraph.

78 See UNFCCC, Article 3(1).

79 See, *eg*, Paris Agreement, Articles 9(1) and 13(9).

80 See, *eg*, Paris Agreement, Articles 4(6), 9(4), 9(9), 11(1) and 13(3).

81 UNFCCC, preamble, third paragraph.

2. SPECIFIC LEGALLY BINDING OBLIGATIONS ON PARTIES

3.34 We turn next to the specific salient obligations that are binding on Parties to the Paris Agreement.

3.35 **Mitigation.** Article 4 is the mitigation pillar of the Paris Agreement. The legally binding obligations are set out in the following paragraphs:

(a) **Paragraph 2** sets out two binding obligations[82] on each Party. They are to "prepare, communicate and maintain successive [NDCs] that it intends to achieve" and to "pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions". As regards the first obligation, while the NDCs are what each Party "intends to achieve", there is nevertheless an obligation under Article 3 for Parties ("all Parties *are to*") to undertake and communicate NDCs "with the view to achieving the purpose of [the Paris Agreement] as set out in Article 2". As regards the second obligation, while paragraph 2 gives Parties discretion in the specific domestic mitigation measures they implement, they must nevertheless pursue these measures with the aim of achieving the objectives of their NDCs. A Party that takes no steps or fails to take reasonable steps to do so violates Article 4(2).

(b) **Paragraphs 8 and 9** provide that Parties, in communicating their NDCs, shall "provide the information necessary for clarity, transparency and understanding" and shall "communicate [an NDC] every five years" in accordance with Decision 1/CP.21 and any relevant decisions of the [CMA]". Parties shall also "be informed by the outcome of the global stocktake referred to in Article 14", which includes the inaugural global stocktake concluded at COP28 in December 2023. Reading Article 4(9) together with Article 14(3), Parties are obliged to consider in good

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82 See Daniel Bodansky, Jutta Brunnée, Lavanya Rajamani: Paris Agreement (in: *International Climate Change Law*), Chapter 7, p. 231.

faith[83] the global stocktake outcomes in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of the Agreement, as well as in enhancing international cooperation for climate action.

(c) **Paragraph 13** provides that Parties are obliged to account for their NDCs, and in so doing, shall "promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double accounting", in accordance with the guidance adopted by the CMA.

(d) **Paragraph 15** provides that in the implementation of the Paris Agreement, Parties shall take into consideration the concerns of Parties "with economies most affected by the impacts of response measures, particularly developing country Parties".

3.36 The Paris Agreement recognises that Parties may choose to pursue voluntary cooperation in the implementation of their NDCs[84]. This is to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity[85]. However, where Parties choose to engage in voluntary cooperation that involves the use of internationally transferred mitigation outcomes towards NDCs, Parties have the obligation to: (a) "promote sustainable development and ensure environmental integrity and transparency, including in governance"; and (b) "apply robust accounting to

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83 See Jürgen Friedrich: Global Stocktake (in: *The Paris Agreement: Analysis and Commentary)*, Chapter 19, p. 332.

84 See Paris Agreement, Article 6(1).

85 *Ibid*.

ensure, inter alia, the avoidance of double accounting, consistent with the guidance adopted by [CMA]"[86].

3.37 **Adaptation.** The binding obligation in respect of adaptation to climate change impacts is set out in Article 7(9), which provides that each Party shall "as appropriate, engage in adaptation planning processes and the implementation of actions". Parties are thus obliged to give serious consideration to planning and implementing adaptation policies and measures, even though States are allowed to determine the exact content of their planning processes and implementation[87].

3.38 **Climate Finance.** Climate finance is an important component for the implementation of mitigation and adaptation actions for developing countries. In this regard, developed country Parties are specifically obliged under Article 9(1) to provide financial resources to assist developing country Parties with respect to both mitigation and adaptation.

3.39 This obligation is reinforced by the following binding obligations pertaining to reporting:

(*a*) ***Ex ante* communication obligation**. Under Article 9(5), developed country Parties shall biennially communicate indicative quantitative and qualitative information on financial resources to be provided to developing country Parties; and

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86 Paris Agreement, Article 6(2).

87 See Irene Suárez Pérez, Angela Churie Kallhauge: Adaptation (in: *The Paris Agreement: Analysis and Commentary*), Chapter 12, p. 210.

(*b*) ***Ex post* reporting obligation**. Under Article 9(7), developed country Parties shall biennially communicate information on support that they have provided and mobilised for developing country Parties[88].

3.40 **Technology Transfer.** Under Article 10(2), Parties are required to strengthen cooperative action on technology development and transfer, given the importance of technology to the implementation of mitigation and adaptation actions.

3.41 **Capacity Building.** Capacity building is essential for developing country Parties, in particular those that are particularly vulnerable to the adverse effects of climate change, such as small island developing States, to take effective climate change action[89]. While Article 11(3) only encourages all Parties, without prejudice to their respective stages of development, to cooperate to enhance the capacity of developing country Parties to implement the Paris Agreement, a Party that enhances the capacity of a developing country Party is required to fulfil the procedural obligation to communicate the relevant capacity-building actions or measures regularly[90].

3.42 **Transparency.** Article 13 provides the transparency framework under the Paris Agreement which helps to ensure compliance by Parties. Under Article 13(7), Parties are obliged to regularly provide: (a) a national inventory report of anthropogenic emissions by sources and removals by sinks of GHG, prepared using good practice methodologies accepted by the IPCC and agreed upon by CMA; and (b) information necessary to track progress made in implementing and achieving its NDCs. Developed country Parties also have the obligation

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88 See Jorge Gastelumendi, Inka Gnittke: Climate Finance (in: *The Paris Agreement: Analysis and Commentary*), Part II, Chapter 14, p. 247.

89 See Paris Agreement, Article 11(1).

90 See Paris Agreement, Article 11(4).

under Article 13(9) to provide information on the financial, technology transfer and capacity-building support they provide to developing country Parties.

3.43 The obligations above are the ones that Singapore considers to be the more salient binding obligations placed on Parties to the Paris Agreement. While this list of obligations is not exhaustive, these binding obligations cover not just substantive actions to be taken with respect to mitigation and adaptation within an individual State, but also commitments to finance, capacity building and the transfer of technology which facilitate climate actions taken by developing country Parties. They are further supported by procedural obligations on reporting and transparency to track progress made and promote accountability. Taken together, they enable a more holistic and effective global response to climate change.

C. UNCLOS

1. Applicability of UNCLOS to Climate Change

3.44 At the outset, 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.

3.45 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). First, the act must involve the anthropogenic direct or indirect introduction of substances or energy into the marine environment. Second, 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.

3.46 In Singapore's view, anthropogenic emissions of GHG that cause ocean acidification and ocean warming clearly satisfy the two limbs of this definition in Article 1(4). This view is grounded in the scientific evidence set out in the reports of the IPCC. As mentioned above (at paragraph 1.6), the IPCC is widely regarded as authoritative on climate science. In particular, its Special Report on the Ocean and Cryosphere in a Changing Climate ("**SROCC**") was accepted by all IPCC member governments at the IPCC's 51st session in 2019[91], and is widely cited, including in resolutions of the General Assembly[92].

3.47 As noted in the SROCC, the ocean has taken up around 20 to 30% of total anthropogenic carbon dioxide emissions since the 1980s, and this uptake of excess carbon dioxide has lowered the pH (meaning that it has increased the acidity) of the ocean since the late 1980s[93]. 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 through non-anthropogenic sources.

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91 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 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".

92 See, *eg*, General Assembly resolution 77/248 on "Oceans and the law of the sea" adopted on 30 December 2022, para. 213; and General Assembly resolution 76/72 on "Oceans and the law of the sea" adopted on 9 December 2021, para. 207.

93 See SROCC, Summary for Policy Makers, para. A.2.5.

3.48 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[94].

3.49 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[95]. 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 GHG emissions[96]. Thus, the first limb of the Article 1(4) definition of "pollution of the marine environment" is satisfied.

3.50 As for the second limb of the Article 1(4) definition, 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[97]. Ocean warming also results in the related process of ocean deoxygenation due to reduced oxygen solubility and increased oxygen consumption and stratification[98]. The loss in oxygen in turn further contributes to the increased growth of harmful algal blooms and

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94 See SROCC, Summary for Policy Makers, para. A.6.4.

95 See SROCC, Summary for Policy Makers, para. A.2.

96 See SROCC, Chapter 5, pp. 450–452 and pp. 457–458.

97 See SROCC, Technical Summary pp. 61–62; and SROCC, Summary for Policy Makers, para. A.8.2.

98 See SROCC, Annex I: Glossary, p. 693.

pathogens, and the harming of corals[99]. These effects cause negative impacts on food security, tourism, the local economy and human health[100], 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 poses grave risks to human communities in low-lying coastal areas[101].

3.51 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 protect and preserve the marine environment as well as 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. The degree of acceptance of Part XII of UNCLOS and the consensus expressed by States in negotiating its provisions on the marine environment indicate that many provisions represent an agreed codification of existing rules and principles that have become part of general international law[102]. These relate to the following: the general obligation to protect and preserve the marine

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99 See SROCC, Technical Summary, p. 62; and SROCC, Summary for Policy Makers, para. B.5.4.

100 See SROCC, Summary for Policy Makers, paras. A.8 and A.8.2.

101 See SROCC, Summary for Policy Makers, paras. A.3 and B.9.

102 See Alan Boyle and Catherine Redgwell: Rights and Obligations of States Concerning Protection of the Environment (in: Birnie, Boyle and Redgwell's *International Law and the Environment* (Oxford University Press, 4th ed., 2021) ("***International Law and the Environment***")), Chapter 3, p. 218; see also, Alan Boyle and Catherine Redgwell: Prevention of Marine Pollution (in: *International Law and the Environment*), Chapter 9, pp. 510–511. Chapter 17 of the United Nations Conference on Environment and Development, Rio de Janerio, Brazil, 3-14 June 1992, Agenda 21, referred to "International law, as reflected in the provisions of the UNCLOS, referred to in this chapter of Agenda 21, sets forth rights and obligations of States and provides the international basis upon which to pursue the protection and sustainable development of the marine and coastal environment and its resources". In the *South China Sea Arbitration (Philippines* v. *China), Award, 12 July 2016, PCA Case No. 2013-19* ("***South China Sea Arbitration***"), the Tribunal noted 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" (para. 940).

environment (Article 192); the due diligence obligations (Article 194); the duty to cooperate (Articles 197, 200 and 201); the duty to adopt and enforce relevant laws and regulations (Articles 207, 212, 213 and 222); and finally, technical assistance obligations (Article 202).

2. General Obligation to Protect and Preserve the Marine Environment

3.52 Under Article 192 of UNCLOS, States have the "[g]eneral obligation" to "protect and preserve the marine environment". 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[103]. 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[104]. Article 192 is generally regarded as reflecting customary international law and accordingly the obligation set out in that Article is binding on all States and not just States Parties to UNCLOS[105].

3.53 The content of the general obligation in Article 192 is concretised in the subsequent provisions of Part XII.

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103 See *South China Sea Arbitration*, pp. 373–374, para. 941.

104 *Ibid*.

105 See, *eg*, Alexander Proelss (ed.), *United Nations Convention on the Law of the Sea: A Commentary* (Nomos, 2017) ("**Proelss**"), pp. 1284-1285, para. 21. See also, *Protection and preservation of the marine environment: Report of the Secretary-General*, United Nations doc. A/44/461, 18 September 1989, para. 29.

3. DUE DILIGENCE OBLIGATIONS IN PART XII OF UNCLOS

3.54 Article 194(1) sets out 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". This reflects the customary international law obligation as set out in the *Trail Smelter* case[106]. Article 194(3) reiterates that the measures taken pursuant to Part XII shall deal with "all sources" of marine pollution, which are expanded upon through more detailed provisions in Section 5. In line with Singapore's submissions in Chapter III, Section C.1, above that excess anthropogenic GHG emissions cause "pollution of the marine environment" under UNCLOS, Article 194 should be read to include the obligation of States to take all measures necessary to prevent, reduce and control anthropogenic GHG emissions causing deleterious effects to the marine environment.

3.55 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[107]. They refer to States taking "all measures … that are necessary" and "all measures necessary" to

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106 See paragraph 3.1 above.

107 See Proelss, p. 1306, para. 20.

prevent, reduce and control pollution. The Court in *Pulp Mills*[108] and the ITLOS Seabed Disputes Chamber in the *Activities in the Area Advisory Opinion*[109] have interpreted similarly worded obligations in UNCLOS and other treaties as importing obligations of due diligence.

3.56 Thus, Singapore's views set out at Chapter III, Section A, above would similarly apply to the due diligence obligations reflected in Articles 194(1) and (2). Further, Singapore considers it useful to highlight the following features of the due diligence obligation embodied in these provisions:

(*a*) The notion of differentiated responsibility in determining the content of the due diligence obligation 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.

(*b*) The due diligence obligation to address anthropogenic GHG emissions imposed by Article 194 of UNCLOS would, in Singapore's view, require States, in determining what measures they should take, to take into account the body of scientific evidence set out in the IPCC reports on the marine environmental impacts if the long-term global

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108 In considering Article 36 of the 1975 Statute of the River Uruguay (which required Argentina and Uruguay to coordinate the necessary measures to avoid changing the ecological balance of the River Uruguay), the Court 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" (*Pulp Mills*, p. 77, para. 187).

109 The ITLOS Seabed Disputes Chamber held that the purpose of Article 139(2) of UNCLOS, among others, was 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 (*Activities in the Area Advisory Opinion*, p. 43, para. 119).

temperature goal of the Paris Agreement is not met[110]. This is because the content of due diligence may evolve with scientific knowledge and technological development and the exercise of due diligence must accordingly have regard to the prevailing scientific knowledge and technology.

(*c*) How States exercise their discretion must also be informed by international rules and standards. In the climate change context, this includes compliance with their obligations under the UNFCCC and Paris Agreement (see Chapter III, Section B, above).

(*d*) Compliance with due diligence obligations under Article 194 is not merely a self-judging exercise. A State must act in good faith as underlined in Article 300 of UNCLOS. The ITLOS Seabed Disputes Chamber 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."[111]

(*e*) Applying the precautionary approach is also a relevant factor in meeting a State's obligation of due diligence under Article 194 of UNCLOS. The ITLOS Seabed Disputes Chamber considered that the precautionary approach was an "integral part of the general obligation of due diligence"[112]. States therefore cannot disregard plausible indications of threats of serious or irreversible environmental damage, even when scientific evidence on the scope and impacts of an activity may be insufficient. For example, although there remain limitations in scientific knowledge about climate change impacts on certain types of

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110 See, *eg*, SROCC, Chapter 5; and IPCC Climate Change 2023 Synthesis Report, Section 3.1.3.

111 *Activities in the Area Advisory Opinion*, p. 71, para. 230.

112 *Activities in the Area Advisory Opinion*, p. 46, para. 131.

environments (such as the deep ocean floor) and ecosystem components (such as viruses and protists)[113], this should not be a justification for ignoring the risks to these environments and ecosystem components when determining practicable measures to take.

4. COOPERATION OBLIGATIONS IN PART XII OF UNCLOS

3.57 The duty to cooperate has been described by ITLOS as a "fundamental principle in the prevention of pollution of the marine environment under Part XII of the Convention [*ie*, UNCLOS] and general international law"[114]. In the light of the global nature of the climate change problem, this duty warrants especially close attention in this context. In the context of the prevention of pollution of the marine environment, the discharge of a State's duty to cooperate under general international law is informed by Section 2 of Part XII on "Global and regional cooperation". This contains provisions that lend greater clarity to States as to what is required of them in order to properly carry out this duty on matters concerning the marine environment.

3.58 Article 197 sets out the obligation for States to cooperate "in formulating and elaborating international rules, standards and recommended practices and procedures consistent with [UNCLOS], for the protection and preservation of the marine environment". This duty of cooperation in Article 197 has been recognised as forming part of customary international law[115]. In the climate

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113 See SROCC, Chapter 5 (Section 5.7 on "Key Uncertainties and Gaps"), p. 544.

114 *MOX Plant*, p. 110, para. 82; see also, the Separate Opinion of Judge Rüdiger Wolfrum, who considered the obligation to cooperate "the overriding principle of international environmental law" (*ITLOS Reports 2001*, p. 135).

115 See Proelss, pp. 1330–1331, paras. 10–11. Additional support for the view that Article 197 states a customary international law duty can be found in the Preamble to the OSPAR Convention, which specifically recalled "the relevant provisions of customary international law reflected in Part XII of [UNCLOS] and, in particular, Art. 197 on global and regional cooperation for the protection and preservation of the marine environment".

change context, States must therefore cooperate in formulating and elaborating international rules, standards and recommended practices and procedures consistent with UNCLOS, for the prevention, reduction and control of anthropogenic GHG emissions, such as those under the UNFCCC and the Paris Agreement, and under sector-specific processes such as the adoption of relevant standards on GHG emissions from shipping under MARPOL Annex VI, 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[116]. 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 pertaining to the marine environment[117]. A State that persistently refuses to engage with other States in good faith would be in breach of this specific obligation.

3.59 In addition, the specific obligation to cooperate to formulate and elaborate international rules, *etc*, for the protection and preservation of the marine environment 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.

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116 United Nations, *Treaty Series*, vol. 15, p. 295.

117 See also, in the specific context of pollution control, UNCLOS, Articles 207(4) and 212(3), which 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.

3.60 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 Parties must cooperate in relation to pollution of the marine environment.

(*a*) Article 200 requires States Parties 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 Parties 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 GHG emissions and climate change, including the discussions and meetings of the IPCC, which are open to all UN Member States.

(*b*) Article 201 requires States Parties 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 analysis on Article 197 above (see paragraphs 3.58-3.59), the specific obligation in the climate change context is for States Parties 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 GHG emissions. These include discussions of the Subsidiary Body for Scientific and Technological Advice ("**SBSTA**") under the UNFCCC, which supports the work of the COP 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 COP.

3.61 Further, there are aspects of Article 194 that elaborate upon the duty to cooperate. 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 relevant 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, refers to an obligation to negotiate with other States in good faith to harmonize their national measures on the prevention, reduction and control of anthropogenic GHG emissions. In the *Chagos Arbitration*, the arbitral tribunal held that this obligation under Article 194(1) requires only "best efforts"; it does not require that "such attempts [to harmonize] precede any action with respect to the marine environment, nor does it impose any particular deadline"[118].

5. Adopting and Enforcing Laws and Regulations under Part XII of UNCLOS to Prevent, Reduce and Control Pollution of the Marine Environment

3.62 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[119]. Because Article 194 codifies a customary international law obligation, the obligations under Section 5 of Part XII to take necessary measures with regard to legislative and non-legislative acts are not only binding on States Parties to UNCLOS but also inform compliance by States non-Parties to UNCLOS of their due diligence obligation under customary international law.

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

119 The provisions in Section 5 of Part XII of UNCLOS 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. See Virginia Commentary, p. 127, para. 207.1.

3.63 The two most relevant Section 5 provisions in the context of climate change are Article 207 on pollution from land-based sources (which covers all airborne emissions from land-based sources, including industrial and agricultural activities and power generation) 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 and have been transferred through the atmosphere)[120].

3.64 Both Articles 207 and 212 contain obligations for States Parties 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 GHG emissions causing deleterious effects to the marine environment. Article 207 applies to pollution from a State Party's land territory while Article 212 applies to its sovereign airspace, its flagged vessels, and aircraft of its registered air operators.

3.65 Under paragraph 1 of Articles 207 and 212, States Parties must adopt laws and regulations and in doing so must take into account internationally agreed rules, standards and recommended practices and procedures. While the exact content of these laws and regulations is not specified, Singapore submits that 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 Articles 194(1) and (2)

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120 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, p. 1422, para. 2.

respectively. The due diligence obligation therefore also applies to paragraph 2 of Articles 207 and 212.

3.66 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" (*ie*, "**GAIRS**") must be taken into account. GAIRS cover not just legally binding rules and standards, but also soft law norms that are not legally binding, provided these norms are "internationally agreed". This means that there should be: (i) broad participation by States in their making (given that Articles 207(4) and 212(3) specify that GAIRS are established by States "through competent international organizations or diplomatic conference"[121]); and (ii) broad acceptance by States of their normative status, which may be legally binding or non-binding.

3.67 The UNFCCC and the Paris Agreement fulfil these criteria as GAIRS under Articles 207 and 212 in relation to anthropogenic GHG emissions. In particular, the Paris Agreement is clearly an "internationally agreed" instrument under both Articles 207 and 212, having been negotiated with the widespread participation of States and having no fewer than 195 Parties. Thus, in the climate change context, UNCLOS States Parties have the obligation under Articles 207 and 212 to take into account the GAIRS embodied in the UNFCCC and Paris Agreement when they formulate laws and regulations.

3.68 In relation to ship-source pollution from or through the atmosphere under Article 212, MARPOL Annex VI, which sets the relevant standards to minimise airborne GHG emissions from ships and the carbon intensity of global shipping, also fulfils the criteria. In addition, the inclusion of the specific reference to "recommended practices and procedures" in Articles 207 and 212 makes it clear

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121 "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, p. 1428, para. 14.

that these provisions are also intended to cover non-legally binding soft law instruments, if 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 IMO[122].

3.69 In the context of climate change, States Parties to UNCLOS are accordingly required to take into account in good faith the UNFCCC and Paris Agreement, MARPOL Annex VI, and IMO resolutions MEPC.366(79) and MEPC.367(79) in adopting laws and regulations under Articles 207 and 212.

3.70 The provisions in Section 6 on "Enforcement" have been said to "give practical effect" to Article 194[123]. States Parties to UNCLOS have the obligation under Article 213 and Article 222 to enforce laws and regulations concerning land-based pollution and pollution from or through the atmosphere adopted under Articles 207 and 212 respectively. States Parties are required to 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 Parties within the framework of their legal systems[124], 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 GHG emissions causing deleterious effects to the marine environment.

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122 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", both adopted on 16 December 2022.

123 Virginia Commentary, p. 215, para. 213.1.

124 See *Activities in the Area Advisory Opinion*, p. 70, paras. 227–229.

3.71 Articles 213 and 222 also oblige States Parties to UNCLOS 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 international law[125]. In the climate change context, these include its treaty obligations under the UNFCCC and Paris Agreement (see Chapter III, Section B, above).

6. TECHNICAL ASSISTANCE OBLIGATIONS UNDER PART XII OF UNCLOS

3.72 Finally, Article 202 specifies States Parties' obligations in relation to the provision of scientific and technical assistance to developing States for the protection and preservation of the marine environment and the prevention, reduction and control of pollution of the marine environment. In the context of climate change, Article 202(a) requires States Parties to promote assistance programmes to developing States for the prevention, reduction and control of anthropogenic GHG emissions[126]. 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.

D. International Human Rights Obligations

3.73 This Section addresses international human rights law as a source of obligations on States to take measures for the protection of the climate system and other

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125 See Proelss, p. 1455, para. 10.

126 For example, the Singapore Cooperation Programme offers technical assistance courses in topics including mitigation policies and technologies (see <https://scp.gov.sg>, last accessed: 7 March 2024).

parts of the environment from significant harm caused by anthropogenic GHG emissions. In summary, Singapore submits that a State's human rights obligations are applicable to climate change and require States to take appropriate measures to protect individuals within their jurisdiction from adverse impacts of climate change. Such measures can include not only adaptation, but also mitigation measures. The requisite mitigation measures to discharge a State's applicable human rights obligations are informed by, and must be interpreted consistently with, its obligations to contribute to collective climate mitigation under the UNFCCC and Paris Agreement regime. States also have obligations to cooperate in the respect for and observance of human rights of persons outside of their territory, which apply in the context of climate change.

1. PRELIMINARY OBSERVATIONS

3.74 At the outset, Singapore highlights the need to distinguish between mitigation and adaptation in the application of human rights obligations to climate change. This is because a State's human rights obligations apply to individuals within its jurisdiction, which is primarily territorial[127]. In the case of adaptation measures, a direct causative nexus can often be established between a State's adaptation efforts and the prevention of harm to the rights of individuals within its jurisdiction caused by ongoing or predicted adverse impacts of climate change. In contrast, a State is unable to prevent climate change through its own

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127 The UDHR proclaims that every individual and organ of society "shall strive…to secure their universal and effective recognition and observance, both among peoples of Member States themselves and among the peoples of territories under their jurisdiction." Article 2(1) of the International Convenant on Civil and Political Rights (United Nations, *Treaty Series*, vol. 999, p. 171) ("**ICCPR**") and Article 2(1) of the Convention on the Rights of the Child (United Nations, *Treaty Series*, vol. 1577, p. 3) ("**CRC**") respectively oblige States Parties to ensure rights to individuals "within its territory and subject to its jurisdiction" and "each child within their jurisdiction". The Court has recognised that the International Covenant on Economic, Social and Cultural Rights guarantees rights that are "essentially territorial" and applied it to a State Party's territory and territory subject to its jurisdiction (*Wall Advisory Opinion*, p. 180, para. 112).

mitigation measures alone, and it is usually not possible to directly attribute any omissions on its part to take mitigation measures to harmful effects of climate change on individuals within its jurisdiction or anywhere else in the world. As will be explained later, the collective nature of mitigation does not make human rights obligations inapplicable to climate change mitigation, but requires that they be informed by climate change treaty obligations.

3.75 As a further preliminary observation, the specific human rights obligations will vary for each State according to the human rights treaties to which it is party. Singapore recognises the fundamental human rights enshrined in the Universal Declaration of Human Rights ("**UDHR**")[128] in accordance with their application under customary international law[129], and obligations under human rights treaties to which Singapore is party. Singapore is not party to the International Covenant on Civil and Political Rights[130] ("**ICCPR**") and the International Covenant on Economic, Social and Cultural Rights[131] ("**ICESCR**"), and therefore they are not sources of international legal obligations for Singapore. References to provisions in the ICCPR and ICESCR in this written statement do not imply any position on the status of those provisions under customary international law for Singapore.

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128 General Assembly resolution 217 A (III) "Universal Declaration of Human Rights", adopted on 10 December 1948.

129 While the UDHR is not binding in itself as a General Assembly resolution, many of the rights enshrined in the UDHR have customary international law status by virtue of general practice that is accepted as law. The Court has referred to the UDHR as a source of fundamental principles in *United States Diplomatic and Consular Staff in Tehran, Judgment, I.C.J Reports 1980*, p. 3, at p. 42, para. 91: "Wrongfully to deprive human beings of their freedom and to subject them to physical constraint in conditions of hardship is in itself manifestly incompatible with the principles of the United Nations Charter, as well as with the fundamental principles enunciated in the Universal Declaration of Human Rights."

130 United Nations, *Treaty Series*, vol. 999, p. 171.

131 United Nations, *Treaty Series*, vol. 993, p. 3.

2. HUMAN RIGHTS MOST LIKELY ADVERSELY IMPACTED BY CLIMATE CHANGE

3.76 Climate change caused by anthropogenic GHG emissions poses significant risks to the effective enjoyment of a range of human rights. The science is clear that climate change has widespread adverse impacts on human health, food security, and individual livelihoods and well-being that are unequally distributed across systems, regions and sectors[132]. Coastal cities and settlements by the sea are especially at risk of a range of climate- and ocean-compounded hazards driven by climate change[133]. The following paragraphs briefly highlight the human rights most likely to be threatened by climate change, to set the context for subsequent discussion on what human rights obligations require of States to protect individuals against adverse impacts of climate change. The rights listed are not comprehensive and subject to the need for a case-by-case analysis of the applicability of specific rights to the facts.

3.77 **The right to life** is enshrined in Article 3 of the UDHR[134]. This right is fundamental and a precondition to the exercise of any other human right, and is protected not only by treaty provisions[135] but also under customary international law. Human mortality is one of the risks posed by impacts of climate change. The IPCC reported that "[i]n all regions increases in extreme heat events have

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132 See IPCC Climate Change 2023 Synthesis Report, Summary for Policymakers, para. A.2.6.

133 See IPCC, 2022: *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. Cambridge University Press, Cambridge, UK and New York, NY, USA, 3056 pp. ("**IPCC Climate Change 2022 Report**"), Cross-Chapter paper 2: Cities and Settlements by the Sea, p. 2182.

134 Article 3 of the UDHR states: "Everyone has the right to life, liberty and security of person."

135 Article 6 of the ICCPR also prescribes obligations for its States Parties with respect to recognising and protecting the right to life.

resulted in human mortality and morbidity (*very high confidence*)"[136] and that "[h]azards and associated risks expected in the near-term include an increase in heat-related human mortality and morbidity (*high confidence*)"[137].

3.78 **The right to a standard of living adequate for health and well-being, including food, clothing, housing and medical care**, is recognised in Article 25 of the UDHR[138]. It has been fleshed out into more specific obligations for States Parties to the ICESCR to ensure the realisation of the right to an adequate standard of living, including adequate food, clothing and housing (Article 11) and the highest attainable standard of health (Article 12).

3.79 There is evidence that rights relating to health and well-being, food and housing are at risk due to the impacts of climate change, especially in regions and for people facing considerable development constraints which make them highly vulnerable to climate hazards. Increasing weather and climate extreme events have exposed millions of people to acute food insecurity and reduced water security, with more severe impacts on human mortality from floods, droughts and storms in highly vulnerable regions[139]. The IPCC has already reported an increase in the "occurrence of climate-related food-borne and water-borne diseases (*very high confidence*) and the incidence of vector-borne diseases (*high confidence*)", and that "some mental health challenges are associated with increasing temperatures (*high confidence*), trauma from extreme events (*very high confidence*), and loss of livelihoods and culture (*high confidence*)."[140] In

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136 IPCC Climate Change 2023 Synthesis Report, Summary for Policymakers, para. A.2.5.

137 IPCC Climate Change 2023 Synthesis Report, Summary for Policymakers, para. B.2.1.

138 Article 25(1) of the UDHR states: "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control."

139 See IPCC Climate Change 2023 Synthesis Report, Summary for Policymakers, para. A.2.2.

140 IPCC Climate Change 2023 Synthesis Report, Summary for Policymakers, para. A.2.5.

urban areas, adverse impacts on human health, livelihoods and well-being have been observed, concentrated among economically and socially marginalised urban residents[141].

3.80 **Rights of the child.** It is well-established in international human rights law that childhood is entitled to special care and assistance[142]. Virtually all States are party to the Convention on the Rights of the Child[143] ("**CRC**") and obliged to "respect and ensure" the rights set forth in the CRC to "each child within their jurisdiction"[144]. Adverse impacts of climate change, as noted above, include human mortality, food and water insecurity, and increased occurrence of diseases. Children are particularly vulnerable to the adverse impacts of reduced food and water security, as well as increased mental health challenges, including anxiety and stress[145]. Heightened care is required of States to protect the rights of each child within their jurisdiction from threats of climate change.

3.81 **The right to self-determination of peoples** is a fundamental principle of international law, enshrined in Article 1 of the United Nations Charter[146] and reaffirmed in the Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations[147] ("**Friendly Relations Declaration**"). It is part

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141 See IPCC Climate Change 2023 Synthesis Report, Summary for Policymakers, para. A.2.7.

142 Article 25(2) of the UDHR states: "Motherhood and childhood are entitled to special care and assistance."

143 United Nations, *Treaty Series*, vol. 1577, p. 3.

144 CRC, Article 2(1).

145 See IPCC Climate Change 2022 Report, Summary for Policymakers, paras. B.1.3 and B.4.4.

146 Article 1 of the United Nations Charter states: "the purpose of the United Nations is to develop friendly relations among nations based on respect for principle of equal rights and self-determination of peoples".

147 General Assembly resolution 2625 (XXV), adopted on 24 October 1970.

of customary international law[148]. The right to self-determination is a collective right held by peoples rather than individuals. Adverse effects of climate change, especially sea level rise, can in extreme scenarios completely inundate the territory of a State or render it incapable of sustaining a permanent population, posing profound challenges to the survival of that State. Given the difficulties of relocating entire communities while preserving their societal and governance structures and their way of life, climate change can therefore threaten the exercise of the right to self-determination of peoples, especially peoples of small, low-lying island developing States.

3. States' Obligations to Ensure the Human Rights of Individuals Within their Jurisdiction in Climate Change Situations

3.82 Given the scientific evidence of the profound risks that climate change poses to the enjoyment of human rights in all regions in the world, to fulfil customary international law and treaty obligations to give effect to human rights, a State must continuously assess these risks within its jurisdiction, and take appropriate measures within its means to prevent violations of human rights caused by climate change impacts. Most substantive human rights obligations under customary international law and in human rights treaties not only require States to abstain from direct violations of human rights but also impose positive obligations on them to take appropriate measures to protect and ensure the rights for individuals within their jurisdiction. They include the rights in Section D.2 above of this Chapter which are most likely to be affected by climate change

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148 The customary international law status of this right has been confirmed by the Court. See, *eg*, *East Timor (Portugal* v. *Australia), Judgment, I.C.J Reports 1995*, p. 90, at p. 102, para. 29; and *Wall Advisory Opinion*, p. 172, para. 88.

impacts[149]. States are not under an absolute obligation to protect their population against every conceivable threat to the right to life or to an adequate standard of living, but must take reasonable measures to do so in the light of their available resources[150].

3.83 The most direct legal implication of climate change risks for a State is the obligation to adopt appropriate adaptation measures within its means to protect its population from ongoing and reasonably foreseeable adverse impacts of climate change. Thus, the obligation to protect the right to life[151] requires a State to take account of scientific evidence of human mortality as an impact of climate change, assess the degree of such risks to individuals within its jurisdiction, and adopt reasonable adaptation measures such as building sea walls and conducting reclamation in areas that will be affected by sea-level rise to prevent life-threatening impacts of climate change on its population[152]. A State that has capacity limitations in taking adaption measures must seek international assistance to do so, and other States have obligations to cooperate in relation to the provision of international assistance (see Chapter III, Section D.4, below).

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149 For example, the UDHR proclaims that "every individual and every organ of society…shall strive…by progressive measures, national and international, to secure their universal and effective recognition and observance". Articles 2 and 4 of the CRC require its States Parties to "undertake all appropriate legislative, administrative, and other measures for the implementation of rights" for "each child within their jurisdiction"; Article 2 of the ICESCR requires its States Parties to take steps to the maximum of available resources with a view to achieving progressively the full realisation of rights recognised by all appropriate means; Article 2 of the ICCPR obliges its States Parties to "adopt such laws or other measures as may be necessary to give effect to the rights" recognised in the Covenant to all individuals within its territory and subject to its jurisdiction.

150 See John Tobin: A State's General Obligation of Implementation (in: *The UN Convention on the Rights of the Child: A Commentary* (Oxford University Press, 2019)), Article 4, pp. 130–131.

151 UDHR, Article 3; CRC, Article 6.

152 By analogy, the ILC Draft Articles on the Protection of Persons in the Event of Disasters, with commentaries, United Nations Doc. A/71/10 (2016), Article 9, Commentary, para. 4, notes that States are obliged to take appropriate measures to prevent the loss of life from impending natural disasters.

3.84 However, the scientific evidence also shows that adaptation measures cannot overcome all harmful impacts of climate change, that the effectiveness of adaptation measures will "decrease with increasing warming" and that hard adaptation limits are already reached in some tropical, coastal, polar and mountain ecosystems[153]. Adaptation will ultimately only be effective if complemented by swift mitigation measures entailing deep global GHG emissions reductions. Delayed mitigation action will cause losses and damages to worsen and more human and natural systems to reach their adaptation limits[154]. Thus, a State's applicable human rights obligations extend to taking reasonable measures to mitigate climate change in order to protect the rights of individuals within its jurisdiction from adverse impacts of climate change.

3.85 For example, the obligation to protect the right to a standard of living adequate for health and well-being recognised in Article 25 of the UDHR[155] requires States to take measures to address environmental pollution that is harmful to human health, and food and water security. States Parties to the CRC are also obliged to take such measures to ensure the rights of the child to the highest attainable standard of health set out in Article 24 of the CRC[156]. Article 24(c) of the CRC further obliges States Parties to take into consideration the dangers and risks of environmental pollution when taking appropriate measures to combat disease and malnutrition through, *inter alia*, the provision of nutritious

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153 IPCC Climate Change 2023 Synthesis Report, Summary for Policymakers, paras. A.3.5 and B.4.

154 See IPCC Climate Change 2023 Synthesis Report, Summary for Policymakers, para. C.2.2.

155 UDHR, Article 25 (right to a standard of living adequate for health and well-being, including food, clothing, housing and medical care and necessary social services). See also obligations of States Parties to ICESCR under Article 11 (right to adequate standard of living) and Article 12 (right to highest attainable standard of physical and mental health).

156 See CRC, Article 24 (right of the child to the enjoyment of the highest attainable standard of health). See also, Article 27 (right of the child to a standard of living adequate for physical, mental, spiritual, moral and social development).

foods and clean drinking water[157]. Such environmental pollution includes anthropogenic GHG emissions that are causing climate risks to health, food and water security[158].

3.86 Singapore acknowledges that in almost all situations, it is not possible to establish an exclusive causative nexus between a State's mitigation measures and the prevention of particular climate harms to individuals within its jurisdiction. However, this lack of exclusive causation does not mean that a State need not take any climate mitigation measures in any situation. The widely accepted scientific evidence is that climate inaction by States in general will result in violations of human rights, and that global climate mitigation depends on the collective contribution of all States within their respective capabilities and national circumstances to global GHG emissions reductions.

3.87 The primary means for this collective contribution is the Paris Agreement, which addresses the root causes of climate change and aims for a comprehensive solution, covering both mitigating climate change and enhancing the ability to adapt to climate change. With near universal participation, its provisions qualify as "relevant rules of international law"[159] that may inform the interpretation of measures that a State is obliged to take under the relevant international instruments to protect *inter alia* the right to life and the right to a standard of living adequate for the health and well-being of individuals within its territory and jurisdiction from harmful effects of climate change. Even though a State

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157 See also, ICESCR, Article 12(2)(b), which obliges States Parties to take steps necessary for the improvement of all aspects of environmental and industrial hygiene to achieve full realisation of the right to highest attainable standard of physical and mental health.

158 See IPCC Climate Change 2023 Synthesis Report, Summary for Policymakers, paras. A.2.2, A.2.4, A.2.5 and A.2.7.

159 Vienna Convention on the Law of Treaties (United Nations, *Treaty Series*, vol. 1155, p. 331) ("**Vienna Convention**"), Article 31(3)(c). The Court has confirmed the customary international law character of Articles 31 and 32 of the Vienna Convention, including in *Sovereignty over Pulau Ligitan and Pulau Sipadan (Indonesia/Malaysia), Judgment, I.C.J Reports 2002*, p. 625, at pp. 645–646, para. 37.

cannot protect its population against climate change through its own mitigation measures alone, it is obliged to reduce or prevent the harm to the climate system and resulting hazards to its population by pursuing mitigation measures in good faith within the cooperative context of the Paris Agreement to achieve collective mitigation.

3.88 It should be noted that not every breach of Paris Agreement provisions with respect to mitigation constitutes a concurrent breach of human rights obligations of a State. Human rights obligations do not wholly incorporate, or require compliance with, all of a State's obligations under the UNFCCC and Paris Agreement regime, given the more limited jurisdictional scope and anthropocentric object of human rights obligations[160]. An assessment of whether the failure to take measures to mitigate climate change amounts to a breach of a State's human rights obligations also depends on whether applicable rights of individuals within its jurisdiction are threatened by climate change and the extent to which adaptation measures can avoid those violations of human rights.

4. Obligations of International Cooperation in the Respect for and Observance of Human Rights in the Context of Climate Change

3.89 The previous Section set out the obligations of States to ensure the human rights of individuals within their jurisdiction. However, most individuals affected by the global impacts of climate change are outside of a particular State's jurisdiction, to whom a State does not owe human rights obligations. However, this does not mean that international human rights law is completely silent. This is because there are obligations on States to cooperate in the realisation of the

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160 Richard Gardiner, *Treaty Interpretation* (Oxford University Press, 2nd ed., 2015), at p. 320, states that Article 31(3)(c) of the Vienna Convention implicitly draws "a distinction between using rules of international law as part of the apparatus of treaty interpretation and applying the rules of international law directly to the facts in the context of which the treaty is being considered. The former is within the scope of the Vienna rules, the latter is not."

human rights of individuals and peoples, whether within or outside their jurisdiction, which apply to climate change.

3.90 States have a general obligation to cooperate in promoting universal respect for and observance of human rights. The basic obligation of cooperation with respect to human rights is found in Articles 55 and 56 of the United Nations Charter[161]. Under Article 56, United Nations Member States "pledge themselves to take joint and separate action in co-operation with the Organization for the achievement of the purposes set forth in Article 55"[162]. These Article 55 purposes include "universal respect for, and observance of, human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion"[163]. The obligation to cooperate in relation to human rights and fundamental freedoms "for all" is not limited to the persons within a particular territory or jurisdiction. It is a reference to all persons wherever they may be.

3.91 The United Nations Charter obligation to cooperate in the context of the United Nations system has been extended in the practice of States to cooperation with one another "in the promotion of universal respect for, and observance of, human rights and fundamental freedoms for all, and in the elimination of all forms of racial discrimination and all forms of religious intolerance", as recognised in the Friendly Relations Declaration[164]. Although the Friendly Relations Declaration is part of a General Assembly resolution, which does not

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161 See Rüdiger Wolfrum: Cooperation, International Law of (in: *Max Planck Encyclopedia of International Law*, 2010, April), para. 32.

162 The term "Organization" refers to the United Nations Organization with its various organs and bodies envisaged in the United Nations Charter as well as those entities related to the latter. It thus likely includes the whole United Nations system: see Tobias Stoll: International Economic and Social Co-operation, Article 56 (in: Bruno Simma, *et al* (eds.), *The Charter of the United Nations: A Commentary*, Volume II (Oxford University Press, 3rd ed., 2012)), Chapter IX, p. 1605.

163 United Nations Charter, Article 55(c).

164 See the section titled "The duty of States to co-operate with one another in accordance with the Charter".

create legal obligations *per se*, the Friendly Relations Declaration provides evidence of the consensus among UN Member States on the meaning and elaboration of the principle to cooperate with one another in accordance with the Charter[165]. The Court has considered that the unanimous consent of States to the Friendly Relations Declaration "may be understood as an acceptance of the validity of the rule or set of rules declared by the resolution by themselves"[166].

3.92 The obligation to cooperate in the sphere of human rights has been developed in the United Nations human rights treaty system into more specific obligations of international cooperation for States Parties to each relevant treaty. Article 2(1) of the ICESCR establishes an undertaking by its States Parties "to take steps, individually and *through international assistance and co-operation*, especially economic and technical, to the maximum of its available resources, with the view to achieving progressively the full realization of the rights recognised in the [ICESCR] by all appropriate means." [emphasis added] In the realisation of the right to an adequate standard of living, including adequate food and housing, ICESCR States Parties are required to cooperate for specific purposes relating to the right to be free from hunger[167].

3.93 CRC States Parties are obliged to undertake appropriate measures to implement the economic, social and cultural rights set forth in the CRC "to the maximum extent of their available resources and, where needed, within the framework of international co-operation"[168]. They also undertake to promote and encourage

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165 See Nina HB Jørgensen: The Obligation of Cooperation (in: James Crawford, Alain Pellet *et al* (eds.), *The Law of International Responsibility* (Oxford University Press, 2010) ("***The Law of International Responsibility***")), Chapter 48, pp. 698–699.

166 *Military and Paramilitary Activities in and against Nicaragua (Nicaragua* v. *United States of America), Merits, Judgment, I.C.J Reports 1986*, p. 14, at p. 100, para. 188. The Court was of the view that *opinio juris* may be deduced from the Friendly Relations Declaration as to the binding character of the abstention from the threat or use of force.

167 See ICESCR, Article 11(2).

168 CRC, Article 4.

international cooperation with a view to achieving progressively the full realisation of the right of the child to the highest attainable standard of health, taking particular account of the needs of developing countries[169].

3.94 The protection of human rights from risks associated with global climate change is a clear example of where States need to undertake measures "within the framework of international cooperation", given that inaction or inadequate action on climate change will result in violations of human rights that in most cases cannot be prevented by a State through its domestic measures alone. International law obligations to cooperate in the realisation of human rights under Article 56 of the United Nations Charter and applicable human rights treaties require States to cooperate to address the collective and cross-cutting nature of the climate change problem.

3.95 The discharge by States of their respective obligations to cooperate under Article 56 of the United Nations Charter and applicable human rights treaties is therefore informed by their participation in good faith in relevant international cooperative processes that address the impacts of climate change on people and livelihoods. These processes include the UNFCCC and Paris Agreement regime for their respective Parties, which are the most comprehensive cooperative mechanism to address the range of impacts of climate change on humans and ecosystems. Parties to the Paris Agreement must, in particular, take into account the risks of climate change to the fulfilment of human rights when deciding on the level of ambition of their contributions to the global response to climate change. This includes giving serious consideration to requests by other States for international assistance to help their populations adapt to climate change. The 11th paragraph of the preamble to the Paris Agreement also acknowledges that "climate change is a common concern of humankind" and sets out the

169 See CRC, Article 24(4).

expectation on Parties to "respect, promote and consider their respective obligations on human rights" when taking action to address climate change[170].

170 María Pía Carazo: Contextual Provisions (Preamble and Article 1) (in: *The Paris Agreement: Analysis and Commentary*), Chapter 6, pp. 114–115.

CHAPTER IV
LEGAL CONSEQUENCES FOR STATES WHERE THEY, BY THEIR ACTS AND OMISSIONS, HAVE CAUSED SIGNIFICANT HARM TO THE CLIMATE SYSTEM AND OTHER PARTS OF THE ENVIRONMENT

A. The Applicable Rules on the International Responsibility of States

4.1 The ILC's Draft Articles on the Responsibility of States for Internationally Wrongful Acts[171] ("**ILC Draft Articles on State Responsibility**") are considered to generally reflect customary international law on the conditions under which a State is responsible for a breach of an international obligation[172], and on the legal consequences of such breach for the responsible State[173]. These customary international law rules apply to determine the existence and content of the responsibility of a State for any violations of international legal obligations irrespective of their source or object, except where and to the extent that special rules apply to exclude the customary international law rules[174]. In Singapore's view, the legal regimes under consideration in Chapter III, namely, the customary international law obligation of prevention of significant

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171 ILC Draft Articles on the Responsibility of States for Internationally Wrongful Acts, with commentaries, United Nations Doc. A/56/10 (2001).

172 That is, on issues of attribution of conduct to a State, existence of a breach and to its continuous or composite nature, to complicity and indirect responsibility, and circumstances precluding wrongfulness, regulated in Part One of the ILC Draft Articles on State Responsibility, which "applies to all the cases in which an internationally wrongful act may be committed by a State" (see ILC Draft Articles on State Responsibility, Article 28, Commentary, para. 3), subject to the *lex specialis* rule in draft Article 55.

173 Part Two of the ILC Draft Articles on State Responsibility "deals with the legal consequences for the responsible State": see Part Two, Commentary, para 1.

174 Article 55 of the ILC Draft Articles on State Responsibility states that "the Articles do not apply where and to the extent that the conditions for the existence of an internationally wrongful act or the content or implementation of the international responsibility of a State are governed by special rules of international law." The ILC noted that "[f]or the *lex specialis* principle to apply it is not enough that the same subject matter is dealt with by two provisions; there must be some actual inconsistency between them, or else a discernible intention that one provision is to exclude the other" (ILC Draft Articles on State Responsibility, Article 55, Commentary, para. 4).

transboundary environmental harm, the UNFCCC and Paris Agreement[175]. UNCLOS, and the applicable human rights treaties and obligations identified in Chapter III, Section D, do not contain special rules that exclude the customary international law rules identified by the ILC.

4.2 Accordingly, the legal consequences for a State for its internationally wrongful act[176]—in this case, conduct that is attributable to that State which constitutes a breach of its international obligations (as identified in Chapter III above) regarding the protection of the climate system and other parts of the environment from anthropogenic GHG emissions—are those which arise under customary international law.

4.3 In the specific case of UNCLOS obligations, Article 235(1) of UNCLOS provides that "States are responsible for the fulfilment of their international obligations concerning the protection and preservation of the marine environment" and that "[t]hey shall be liable in accordance with international law". In other words, customary international law determines the legal consequences of State responsibility for breach of international obligations under UNCLOS "concerning the protection and preservation of the marine environment"[177].

4.4 It should be noted that Article 235(3) of UNCLOS requires States to cooperate in the implementation of existing international laws on liability and in the further development of international law relating to responsibility and liability

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175 While Article 8 of the Paris Agreement provides for a "loss and damage" mechanism (*ie*, the Warsaw International Mechanism on Loss and Damage Associated with Climate Change Impacts), Parties agreed that this Article does not involve or provide a basis for any liability or compensation (see Decision 1/CP.21, para. 51). See also, Benoit Mayer: Loss and Damage (in: *International Law on Climate Change*), Chapter 11, pp. 184 and 191.

176 ILC Draft Articles on State Responsibility, Part One, Chapter IV, Commentary, para. 1.

177 *Activities in the Area Advisory Opinion*, p. 30, para. 66.

for damage to the marine environment. This is with the objective "of assuring prompt and adequate compensation in respect of all damage caused by pollution of the marine environment". Article 235(3) operates alongside Article 304, which provides that the provisions of UNCLOS regarding responsibility and liability for damage are "without prejudice to the application of existing rules and the development of further rules regarding responsibility and liability under international law". The outcomes of this cooperative effort in the further development of international law can therefore define special rules that exclude the customary international law rules on the legal consequences in the case of pollution to the marine environment, including that arising from anthropogenic GHG emissions. Singapore notes, however, that no special rules have as yet been developed under Article 235(3).

1. CESSATION AND NON-REPETITION

4.5 A State responsible for an internationally wrongful act is firstly under an obligation to cease the breach and bring its conduct into compliance with international law. It is also obliged to offer appropriate assurances and guarantees of non-repetition, if circumstances so require[178]. Cessation and compliance take on particular importance in the context of climate change, given the challenges of establishing a causal nexus between breaches of obligations and consequential harm, as explained in Section A.2 below.

4.6 If a State, in breach of its customary international law obligation of due diligence, fails to take any reasonable measures to prevent foreseeable significant transboundary environmental harm, it is required to cease that breach by taking such reasonable measures. In the climate change context, Singapore submitted above (see Chapter III, Section A.2) that how a State exercises its discretion in discharging its customary international law due diligence obligation is primarily informed by compliance with its obligations under the

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178 See ILC Draft Articles on State Responsibility, Articles 30(a) and (b).

UNFCCC and Paris Agreement regime to address GHG emissions, including full participation in the collective efforts of the international community to address the same. This means that, for instance, if a Party to the Paris Agreement fails to prepare, communicate or maintain its NDCs or fails to communicate an NDC every five years, it is in breach of Article 4(2) and Article 4(9) respectively of the Paris Agreement and also its customary international law obligation of due diligence as well as its due diligence obligations under Article 194 of UNCLOS (insofar as pollution of the marine environment is concerned). The legal consequence of this breach is that it is required to cease the breach and bring its conduct into compliance with the Paris Agreement (and its customary international law and conventional duties of due diligence) by preparing, communicating and maintaining its NDCs.

4.7 A Party that has communicated NDCs is likewise in breach of its Paris Agreement Article 4(2) and due diligence obligations if it does not pursue any or adequate domestic mitigation measures to achieve the objectives of its NDCs. The legal consequence of this situation is that it is required to pursue the necessary domestic mitigation measures to that end.

4.8 As regards the duty to cooperate in the climate change context, Singapore considers that a State that is party to the UNFCCC and Paris Agreement but does not participate or negotiate seriously and in good faith in the relevant platforms of those treaties, such as the Warsaw International Mechanism on Loss and Damage Associated with Climate Change Impacts, the Technology Mechanism, the relevant Conferences of the Parties and the Global Stocktake, would be in breach of the customary international law duty to cooperate as well as its treaty obligations to cooperate under the UNFCCC and Paris Agreement regime and UNCLOS (where pollution of the marine environment is engaged). To cease such breach, serious and good faith participation and negotiation in the relevant platforms must be undertaken immediately by that State.

4.9 Turning to obligations under UNCLOS, if a State Party fails to take reasonable action to adopt laws and regulations and take other measures as required under Articles 207 and 212 to prevent, reduce and control anthropogenic GHG

emissions causing deleterious efforts to the marine environment, or fails to take into account GAIRS (such as those embodied in the UNFCCC and Paris Agreement, and MARPOL Annex VI) in such adoption, it would be in breach of its obligations under Articles 207 and 212. As a legal consequence, it is required to cease such breach by taking reasonable action to adopt laws, regulations and other measures in accordance with Articles 207 and 212. Similarly, where an UNCLOS State Party has failed to carry out the other obligations identified in Chapter III, Section C, above, it is required to cease such breach by fulfilling those obligations.

4.10 The legal consequences for a State that has breached its obligation to protect the human rights of individuals within its jurisdiction from climate change-related harms or its obligation to cooperate with other States on human rights in climate change situations likewise entail the cessation of the breach and the taking of the required actions.

2. REPARATION

4.11 A responsible State is also under an obligation to make full reparation for the injury caused by the wrongful act[179]. However, a State is only liable to make reparations if there is a causal link between its acts and omissions constituting

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[179] See ILC Draft Articles on State Responsibility, Article 31(1). See also, *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica* v. *Nicaragua), Compensation, Judgment, I.C.J Reports 2018*, p. 15 ("***Certain Activities (Compensation)***"), at pp. 25–26, paras. 29–30; *Factory at Chorzów, Jurisdiction, Judgment No. 8, 1927, P.C.I.J., Series A, No. 9*, p. 21; and *Factory at Chorzów, Merits, Judgment No. 13, 1928, P.C.I.J., Series A, No. 17*, p. 47.

a breach of its obligations and the alleged harm suffered[180]. In the *Activities in the Area Advisory Opinion*, the ITLOS Seabed Disputes Chamber held that "[s]uch a causal link cannot be presumed and must be proven."[181] In the field of environmental protection, the establishment of this causal link is challenging. The Court in *Gabčíkovo-Nagymaros Project* was "mindful … of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this type of damage"[182]. The difficulty in most cases of identifying particular instances of climate harm and attributing these to the acts of particular States, as examined in Chapter III, raises similar challenges when considering reparations for breaches of obligations to ensure the protection of the climate system and other parts of the environment from anthropogenic GHG emissions. Where the injury caused is established to be attributable to an internationally wrongful act of a State, full reparation by that State shall take the form of restitution, compensation and/or satisfaction[183].

4.12 To make restitution, the responsible State is under an obligation to re-establish the situation that existed before the wrongful act was committed, provided and to the extent that restitution (a) is not materially impossible; and (b) does not involve a burden out of all proportion to the benefit deriving from restitution

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180 See ILC Draft Articles on State Responsibility, Article 31(2). See also, ILC draft Articles on State Responsibility, Article 31, Commentary, paras. 9–10. In the UNCLOS context, see, *eg*, *Activities in the Area Advisory Opinion*, p. 59, para. 181. The ITLOS Seabed Disputes Chamber considered the reference in Article 139(2) of UNCLOS to "damage caused" as "clearly indicat[ing] the necessity of a *causal link* between the damage and the failure of the sponsoring State to meet its responsibilities" [emphasis added] and came to the view that "in order for the sponsoring State's liability to arise, there must be a *causal link* between the failure of that State and the damage caused by the sponsored contractor" [emphasis added].

181 *Activities in the Area Advisory Opinion*, p. 60, para. 182.

182 *Gabčíkovo-Nagymaros Project*, p. 78, para. 140; re-stated by the Court in *Pulp Mills*, pp. 76–77, para. 185.

183 See ILC Draft Articles on State Responsibility, Article 34.

instead of compensation[184]. As regards compensation, the responsible State is under an obligation to compensate for the damage caused by its internationally wrongful act, insofar as such damage is not made good by restitution[185]. The compensation shall cover any financially assessable damage, including loss of profits insofar as it is established[186]. Insofar as the injury caused by its wrongful act cannot be made good by restitution or compensation, the responsible State is under an obligation to give satisfaction for the injury[187]. Satisfaction may consist in an acknowledgment of the breach, an expression of regret, a formal apology or another appropriate modality[188].

4.13 The subject matter of reparation is the injury resulting from and ascribable to the wrongful act or omission, rather than any and all consequences flowing from an internationally wrongful act or omission[189]. Thus, what constitutes adequate reparation varies depending upon the specific circumstances surrounding each case and the precise nature and scope of the injury[190]. In the context of climate change, Singapore considers that compensation would be more appropriate than restitution as a form of reparation for harm caused to the climate system and other aspects of the environment. The Court has held that "it is consistent with the principles of international law governing the consequences of internationally wrongful acts, including the principle of full reparation, to hold that compensation is due for damage caused to the environment, in and of

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184 See ILC Draft Articles on State Responsibility, Article 35.

185 See ILC Draft Articles on State Responsibility, Article 36(1).

186 See ILC Draft Articles on State Responsibility, Article 36(2).

187 See ILC Draft Articles on State Responsibility, Article 37(1).

188 See ILC Draft Articles on State Responsibility, Article 37(2).

189 See, *eg*, *Activities in the Area Advisory Opinion*, p. 59, para. 181. See also, ILC Draft Articles on State Responsibility, Article 31, Commentary, para. 9.

190 *Avena and Other Mexican Nationals (Mexico* v. *United States of America), Judgment, I.C.J. Reports 2004*, p. 12, at p. 59, para. 119.

itself"[191] and that "damage to the environment, and the consequent impairment or loss of the ability of the environment to provide goods and services, is compensable under international law"[192]. Given that the environmental damage caused would often be irreversible and aspects of the environment would probably have been permanently lost or destroyed, Singapore submits that restitution to reverse the adverse effects of climate change would for the most part be likely to be "materially impossible or unduly burdensome"[193] in the circumstances. However, the balance to be struck between the benefit gained by the injured State from restitution and the burden restitution would impose on the responsible State may be different when the injured State is a small island developing State (see Chapter IV, Section B, below).

4.14 In assessing whether to award compensation claimed for a particular injury, the Court has stated that it will determine whether there is a "sufficiently direct and certain causal nexus" between the wrongful act and the injury suffered[194]. Where environmental damage is concerned, the Court has noted difficulties regarding proof of the existence of damage and causation, observing that "[t]he damage may be due to several concurrent causes, or the state of science regarding the causal link between the wrongful act and the damage may be

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191 *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo* v. *Uganda), Reparations, Judgment, I.C.J. Reports 2022*, p. 13 ("***Armed Activities (Reparations)***"), at p. 122, para. 348; *Certain Activities (Compensation)*, p. 28, para. 41.

192 *Armed Activities (Reparations)*, p. 122, para. 348; *Certain Activities (Compensation)*, p. 28, para. 42.

193 *Certain Activities (Compensation)*, p. 26, para. 31; *Pulp Mills*, pp. 103–104, para. 273. See also, Christina Voigt: International Environmental Responsibility and Liability (in: Lavanya Rajamani, Jacqueline Peel (eds.), *Oxford Handbook of International Environmental Law* (Oxford University Press, 2021)), Chapter 58, p. 1019.

194 *Armed Activities (Reparations)*, p. 130, para. 382; *Certain Activities (Compensation)*, p. 26, para. 32; *Ahmadou Sadio Diallo (Republic of Guinea* v. *Democratic Republic of the Congo), Compensation, Judgment, I.C.J. Reports 2012*, p. 324 ("***Ahmadou Sadio Diallo (Compensation)***"), pp. 331–332, para. 14; *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina* v. *Serbia and Montenegro), Judgment, I.C.J. Reports 2007*, p. 43, at pp. 233–234, para. 462.

uncertain"[195]. The difficulty in most cases of identifying particular instances of climate harm and attributing these to the acts of particular States, as examined in Chapter III, raises similar challenges to the question of whether compensation can be awarded for particular breaches of obligations to ensure the protection of the climate system and other parts of the environment from anthropogenic GHG emissions.

4.15 Where there is uncertainty as to the exact extent of damage caused, the Court may, "on an exceptional basis, award compensation in the form of a global sum, within the range of possibilities indicated by the evidence and taking into account equitable considerations. Such an approach may be called for where the evidence leaves no doubt that an internationally wrongful act has caused a substantiated injury, but does not allow a precise evaluation of the extent or scale of such injury."[196] However, a claim for compensation will be dismissed if the Court is not provided with any evidence for assessing the alleged extent of damage to the environment[197].

4.16 Claiming compensation for more indirect, non-environmental damage resulting from the adverse effects of climate change may prove more challenging, as these are more remote injuries and it would be difficult in most circumstances to demonstrate a sufficiently direct and certain causal nexus to the wrongful act. In *Armed Activities (Reparations)*, the Court declined to award compensation for alleged macroeconomic damages where the unlawful conduct was unlikely to be the "only relevant cause", and considered that it was not sufficient to show

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195 *Armed Activities (Reparations)*, pp. 122–123, para. 349; *Certain Activities (Compensation)*, p. 26, para. 34.

196 *Armed Activities (Reparations)*, pp. 51–52, para. 106; *Certain Activities (Compensation)*, pp. 26–27, para. 35; and *Ahmadou Sadio Diallo (Compensation)*, p. 334, para. 21, pp. 334–335, para. 24, and p. 337, para. 33.

197 See *Armed Activities (Reparations)*, p. 56, para. 123.

"an uninterrupted chain of events linking the damage to … wrongful conduct"[198].

4.17 In the case of damage caused by pollution of the marine environment, UNCLOS sets out specific requirements pertaining to compensation. Article 235(2) of UNCLOS imposes an obligation on States to provide for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction. This is to be "in accordance with their legal systems" which may prescribe rights of victims of pollution of the marine environment to institute proceedings in the courts of the State having jurisdiction over the natural or juridical persons responsible for the pollution, apply principles of liability under their national laws such as burdens and standards of proof, causation, loss, *etc*.

4.18 In the context of breaches of human rights obligations, it bears noting that State responsibility extends to human rights violations where the primary beneficiary of the obligation breached is not a State. A State's breach of its human rights treaty obligation may nevertheless entail responsibility towards another, some or all other States Parties to the relevant treaty. The responsible State may also have accepted human rights treaty procedures giving individuals within its jurisdiction a right to bring on their own account complaints of human rights violations before an international body or court. The customary international law rules of State responsibility do not prejudice rights which may accrue directly to private persons arising from the international responsibility of a State, where these rights are provided for in specific treaty rules[199]. International human rights courts and other treaty bodies considering individual complaints have been observed to apply customary international law rules to determine the

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198 *Armed Activities (Reparations)*, p. 130, para. 382.

199 See ILC Draft Articles on State Responsibility, Article 28 and Commentary, para. 3, and Article 33(2) and Commentary, para. 3.

respondent State's responsibility vis-à-vis victims of human rights violations[200], in the absence of such specific treaty rules[201].

4.19 As regards responsibility owed to another State, whether reparations are appropriate as legal consequences for the breach of human rights treaty obligations and in what form depend on the factual context and establishment of a causal link between the breach and particular injury suffered by the victim State. The responsible State would also be under an obligation to make reparation for any injury caused by its breach of the obligation to cooperate on human rights in the climate change context[202]. It may be challenging to establish such causal nexus, considering that outcomes of negotiations under cooperation mechanisms also depend on the conduct of other States. Nonetheless, it is conceivable that such causal nexus may exist in some situations, for instance, if one State's stonewalling of international assistance to another State directly prevents the latter State from taking measures that would have helped avoid or reduce adverse impacts of climate change on the rights of its population.

B. Legal Consequences with Respect to Small Island Developing States Specially Affected by the Adverse Effects of Climate Change

4.20 In the climate change context, a small island developing State may be far more seriously affected than other States, due to its geographical circumstances and

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200 See Stefano Brugnatelli: Human Rights Judicial and Semi-Judicial Bodies and Customary International Law on State Responsibility (in: Nerina Boschiero *et al* (eds.), *International Courts and the Development of International Law: Essays in Honour of Tullio Treves* (T.M.C. Asser Press, 2013)), pp. 479, 480 and 483.

201 There are some exceptions in human rights treaties, such as Article 9(5) of the ICCPR, which stipulates that an individual who has been the victim of unlawful arrest or detention has "an enforceable right to compensation". Singapore does not consider it necessary to examine these in detail in this written statement as they do not appear to be particularly pertinent in the context of climate change.

202 See ILC Draft Articles on State Responsibility, Part Three, Article 42, Commentary, para. 3. See also, Brigitte Stern: The Obligation to Make Reparation (in: *The Law of International Responsibility*), Chapter 40, p. 567.

level of development. In this regard, while the legal consequences for the responsible State are determined by general international law as set out in Section A above of this Chapter, Singapore submits that the special circumstances of small island developing States can have an impact on the specific content of these legal consequences.

4.21 First, when it comes to assessing how the balance should be struck between the benefit to be gained by the injured State from restitution and the burden that restitution would impose on the responsible State (see paragraph 4.12 above), the benefit to be derived from restitution for a small island developing State more severely affected by climate change may be harder to be displaced by the burden on the responsible State for providing restitution instead of compensation.

4.22 In the ILC Draft Articles on State Responsibility, the ILC stated that the balance between the benefit to be gained from restitution and the burden which restitution would impose on the responsible State "will invariably favour the injured State in any case where the failure to provide restitution would jeopardize its political independence or economic stability"[203]. Singapore submits that, *a fortiori*, the balance should favour the injured small island developing State specially affected by such adverse effects of climate change as sea-level rise that could in extreme scenarios completely inundate its territory. Accordingly, assuming the difficulties of attributing such harm to a particular responsible State can be overcome, the responsible State could be required to take various measures in favour of the small island developing State in question by way of restoring the environment or affected areas to their original state.

4.23 Second and similarly, where the evidence establishes a causal link between a breach of climate change obligations and particularly serious damage to a small island developing State lacking the means to address such damage, this should

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[203] ILC Draft Articles on State Responsibility, Article 35, Commentary, para. 11.

be one of the "equitable considerations"[204] taken into account in favour of compensation in the form of a global sum to that State even though the exact extent or scale of the damage caused cannot be proven (see paragraph 4.15 above). This would be in line with the ILC's recognition that the appropriate heads of compensable damage and the principles of assessment to be applied in quantification may vary in different cases of breach of obligations, depending upon the content of the particular primary obligation breached, an evaluation of the respective behaviour of the injured and responsible States and, "more generally, a concern to reach an equitable and acceptable outcome"[205].

4.24 Third, in relation to prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment that States are required to provide for under Article 235(2) of UNCLOS (see paragraph 4.17 above), claimants from small island developing States often suffer greater loss and damage from the adverse effects of climate change, but do not have significant means to be left waiting for long periods for their remedy. Singapore submits that the circumstances of such claimants must be taken into account when considering what constitutes "prompt and adequate compensation or other relief" under Article 235(2).

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204 *Armed Activities (Reparations)*, pp. 51–52, para. 106.

205 ILC Draft Articles on State Responsibility, Article 36, Commentary, para. 7.

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CHAPTER V
CONCLUSION

Part (a) of the Question

5.1 In summary, Singapore's submissions in response to part (a) of the Question are as follows:

Customary international law obligation to prevent significant transboundary environmental harm

(*a*) States have customary international law obligations of due diligence and cooperation to prevent significant harm to the climate system and other parts of the environment caused by anthropogenic GHG emissions. These are obligations of conduct and not of result.

(*b*) To discharge the obligation of due diligence in the context of climate change, States must consider the scientific evidence on the causes and impacts of climate change, including the environmental impacts that would occur if the long-term global temperature goal of the Paris Agreement is not met, apply the precautionary approach, be informed by relevant internationally agreed rules and standards, deploy adequate means, exercise best possible efforts and do their utmost to address the problem of anthropogenic GHG emissions, taking into consideration their individual capacities, capabilities and constraints.

(*c*) Given the nature of the activity, where harm is almost always caused by the cumulative impact of global anthropogenic GHG emissons rather than any individual emission, and the seriousness of its effects, States' compliance with the obligation of due diligence in the context of climate change must be informed by their full participation in collective efforts to address anthropogenic GHG emissions and their compliance with obligations under the UNFCCC and Paris Agreement, as well as other relevant international treaties.

(*d*) The discharge of the obligation to cooperate to address climate change requires States to participate in good faith in all relevant international cooperative processes, in particular those of the Paris Agreement for its Parties, and sector-specific processes led by ICAO and IMO to address emissions from international aviation and shipping respectively, and to conduct themselves such that negotiations are meaningful and done in a manner to achieve an international solution on climate change.

Obligations under the Paris Agreement

(*e*) Parties to the Paris Agreement have legally binding obligations under its Articles 4 (on mitigation), 7(9) (on adaptation), 10(2) (on technology transfer), 11 (on capacity building) and 13 (on transparency). Developed country Parties have additional obligations under Article 9(1), (5) and (7) in relation to climate finance. Pursuant to Article 3 of the Paris Agreement, all Parties must implement these obligations with a view to achieving the purpose of the Agreement, in particular the long-term global temperature goal in Article 2(a) and the principles of equity and CBDRRC-NC. The salient obligations are as follows:

(*f*) In relation to mitigation, Article 4(2) obliges a Party to prepare, communicate and maintain successive NDCs that it intends to achieve and to pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

(*g*) In communicating their NDCs, Parties are obliged under Article 4(8) and 4(9) to provide the information necessary for clarity, transparency and understanding and communicate an NDC every five years in accordance with all relevant decisions of CMA. Parties must also ensure that their NDCs are informed by the outcome of the global stocktake referred to in Article 14.

(*h*) Under Article 4(13), Parties are obliged to account for their NDCs, and in so doing, must promote environmental integrity, transparency,

accuracy, completeness, comparability and consistency, and ensure the avoidance of double accounting, in accordance with the guidance adopted by the CMA.

(*i*) Under Article 4(15), in implementing the Paris Agreement, Parties are obliged to take into consideration the concerns of Parties with economies most affected by the impacts of response measures, particularly developing country Parties.

(*j*) In relation to adaptation, Article 7(9) obliges a Party to give serious consideration to planning and implementing adaptation policies and measures, while allowing States to determine the exact content of their planning processes and implementation.

(*k*) In relation to climate finance, developed country Parties are obliged under Article 9(1) to provide financial resources to assist developing country Parties with respect to both mitigation and adaptation. They are also obliged to biennially communicate indicative quantitative and qualitative information on financial resources to be provided to developing country Parties and information on support that they have provided and mobilised for such Parties.

(*l*) In relation to technology transfer, Parties are required under Article 10(2) to strengthen cooperative action on technology development and transfer.

(*m*) In relation to capacity building, a Party that enhances the capacity of a developing country Party is obliged to communicate the relevant capacity-building actions or measures regularly.

(*n*) In relation to transparency, Parties are obliged under Article 13(7) to regularly provide: (i) a national inventory report of anthropogenic emissions by sources and removals by sinks of GHGs, prepared using good practice methodologies accepted by the IPCC and agreed upon by

the CMA; and (ii) information necessary to track progress made in implementing and achieving its NDCs. Developed country Parties also have the obligation under Article 13(9) to provide information on the financial, technology transfer and capacity-building support they provide to developing country Parties.

Obligations under UNCLOS

(*o*) States have customary international law obligations, as set out in Articles 192, 194(1), 194(2) and 197 of UNCLOS, to protect and preserve the marine environment in relation to climate change and to exercise due diligence and cooperate to prevent, reduce and control anthropogenic GHG emissions causing deleterious effects on the marine environment.

(*p*) Under Articles 194(1) and (2) of UNCLOS, States have due diligence obligations to prevent, reduce and control anthropogenic GHG emissions. The factors that inform States' discharge of their due diligence obligations under customary international law (summarised at paragraph 5.1(*b*) above) also apply here.

(*q*) Under the duty of cooperation in Article 197 of UNCLOS, States are obliged to cooperate, 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 GHG emissions, such as those under the UNFCCC and the Paris Agreement. Article 194 further obliges States to negotiate with other States in good faith to harmonise their national measures on the prevention, reduction and control of anthropogenic GHG emissions.

(*r*) Under Article 200 of UNCLOS, States Parties 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 GHG emissions and climate change.

(*s*) Under Article 201 of UNCLOS, States Parties 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 GHG emissions.

(*t*) Under paragraphs 1 and 2 of Articles 207 and 212, States Parties are obliged to adopt laws and regulations, as well as take other measures, to prevent, reduce and control anthropogenic GHG emissions from land-based sources, and from or through their sovereign airspace and their flagged vessels and aircraft, respectively. States must act with due diligence, and take into account GAIRS embodied in the UNFCCC and the Paris Agreement, MARPOL Annex VI, and relevant non-legally binding soft law instruments.

(*u*) Under Articles 213 and 222, States Parties are obliged to enforce the laws and regulations related to the prevention, reduction and control of anthropogenic GHG emissions adopted in accordance with Article 207 (on land-based pollution) and Article 212 (on pollution from and through the atmosphere) respectively. States Parties are also obliged to implement applicable international rules and standards, which include their treaty obligations under the UNFCCC and Paris Agreement.

(*v*) Under Article 202, States are obliged to promote assistance programmes to developing States for the prevention, reduction and control of anthropogenic GHG emissions.

<u>International human rights obligations</u>

(*w*) States have obligations under customary international law and applicable human rights treaties to protect the human rights of

individuals within their jurisdiction, in particular the right to life and the right to a standard of living adequate for health and well-being, from adverse impacts of climate change. To this end, States must take reasonable adaptation and mitigation measures, in the light of their available resources. The mitigation measures a State must take are informed by its mitigation obligations under the Paris Agreement. States must pursue mitigation measures in good faith within the cooperative context of the Paris Agreement to achieve collective mitigation.

(*x*) Under Article 56 of the United Nations Charter and applicable human rights treaties, States are obliged to cooperate with one another in the respect for and observance of human rights within and beyond their own jurisdictions. These obligations to cooperate require States to participate in good faith in relevant international cooperative processes that address the human impacts of climate change, including, for the respective Parties, the mechanisms of the UNFCCC and Paris Agreement, and to take into account the risks of climate change to the fulfilment of human rights when deciding the level of ambition of their contributions to the global response to climate change.

Part (b) of the Question

5.2 Singapore's submissions in response to part (b) of the Question are as follows:

(*a*) The legal consequences for a State for its violation of international legal obligations (as identified in Singapore's response to part (a) of the Question) to ensure the protection of the climate system and other parts of the environment from anthropogenic GHG emissions are those which arise under customary international law.

(*b*) A State responsible for an internationally wrongful act is under an obligation to cease the breach and bring its conduct into compliance. It is also obliged to offer appropriate assurances and guarantees of non-

repetition, if the circumstances so require. If a State, in breach of its customary international law obligation of due diligence, fails to take any reasonable measures to prevent foreseeable significant transboundary damage, it is required to cease that breach by taking such reasonable measures.

(*c*) A State that has breached the duty under customary international law to cooperate to prevent significant transboundary environmental harm caused by anthropogenic GHG emissions must cease such breach by cooperating immediately on the relevant platforms.

(*d*) A State Party to a relevant treaty, such as the UNFCCC, Paris Agreement, UNCLOS or an applicable international human rights treaty, that has breached obligations under that treaty, is required to cease such breach by fulfilling those obligations.

(*e*) A responsible State is also under an obligation to make full reparation for the harm or injury caused by its internationally wrongful act, where a causal link is established between its acts and omissions constituting a breach of its obligations and the harm or injury. Reparation by that State shall take the form of restitution, compensation and/or satisfaction.

(*f*) To make restitution, the responsible State is under an obligation to re-establish the situation that existed before the wrongful act was committed, provided and to the extent that restitution (i) is not materially impossible; and (ii) does not involve a burden out of all proportion to the benefit deriving from restitution instead of compensation.

(*g*) The responsible State is under an obligation to compensate for any financially assessable damage caused by its internationally wrongful act, insofar as such damage is not made good by restitution.

(*h*) Insofar as the injury caused by its wrongful act cannot be made good by restitution or compensation, the responsible State is under an obligation to give satisfaction for the injury.

(*i*) In the case of damage caused by pollution of the marine environment, Article 235(2) of UNCLOS imposes an obligation on States to provide for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction, in accordance with their legal systems.

(*j*) A State's breach of its human rights treaty obligations may entail responsibility towards other States Parties to the relevant treaty, and legal consequences arising out of applicable treaty procedures giving individuals within its jurisdiction a right to bring complaints of such breaches before an international body.

(*k*) The circumstances of small island developing States, which are more severely affected by climate change impacts and which lack the means to address damage arising from such impacts, can affect the specific content of legal consequences such as the appropriateness of restitution, the award of compensation in the form of a global sum and the assessment of what constitutes "prompt and adequate compensation or other relief" for claimants from these States under Article 235(2) of UNCLOS.

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