

INTER-AMERICAN COURT FOR HUMAN RIGHTS

**REQUEST FOR AN ADVISORY OPINION ON THE CLIMATE EMERGENCY AND
HUMAN RIGHTS SUBMITTED TO THE INTER-AMERICAN COURT OF
HUMAN RIGHTS BY THE REPUBLIC OF COLOMBIA AND
THE REPUBLIC OF CHILE**

WRITTEN OBSERVATIONS ON BEHALF OF BARBADOS



18 December 2023

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I. SUMMARY OF WRITTEN OBSERVATIONS (BARBADOS SUBMITS WRITTEN OBSERVATIONS ONLY ON SELECTED QUESTIONS CONTAINED IN THE REQUEST FOR AN ADVISORY OPINION; THE NUMBERING OF SECTIONS IN THESE WRITTEN OBSERVATIONS FOLLOWS THE NUMBERING OF THE QUESTIONS BEING ANSWERED)

1. As a result of the welcome initiative of Chile and Colombia, the Inter-American Court of Human Rights (the “**Court**”) has been given the opportunity to render an advisory opinion on one of the most pressing geopolitical problems of our time – the disastrous environmental consequences caused by human-made emissions of carbon dioxide and other globe-warming gases. As this Court’s settled jurisprudence confirms, the questions presented by Chile and Colombia in their request fit comfortably within the Court’s jurisdiction.¹
2. Notably, the questions posed by Chile and Colombia do not require this Court to act *de lege ferenda* or to apply potentially contested principles of international law. There is no divided *opinio juris* or lack of historical precedent, such as led the International Court of Justice (the “**ICJ**”) to find it could not articulate definitive legal prohibitions in the *Nuclear Weapons Advisory Opinion*.² Instead, answering the central question posed by Chile and Colombia – ‘What are the obligations of States in light of the climate emergency?’ – requires only the application of long-standing international law to undisputed scientific facts.
3. On the law, the core legal principle is as simple as it is ancient: *sic utere tuo ut alienum non laedas*, the classical prohibition on transboundary harm. The principle is stated in Latin because it originates in a Roman principle of law.³ However, the legal concept is not limited to European legal traditions. Furthermore, relevant to this advisory opinion, it is undeniable that this principle of international law pre-dates the start of the Industrial Revolution and its associated massive anthropogenic release of carbon dioxide and other gases into the Earth’s climate.
4. As is now also well-established, the prohibition under international law on transboundary harm protects the environment outside a State’s borders, including both

¹ See Section III.

² See Section V.

³ See paragraph 139.

areas under another State's control and areas outside of any national control. As the ICJ has succinctly explained:

[t]he existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States and of areas beyond national control is now part of the corpus of international law relating to the environment.⁴

5. The principle of transboundary harm also carries with it the requirement of redress based on strict liability. That is, any State that has, by action or omission, caused transboundary harm must do all it can reasonably to remedy and provide redress for that harm. This is regardless of other fault or *dolus*. It is not a defence for any State to assert a purported lack of *reus* (i.e., that it did not mean to), knowledge (i.e., that it did not know) or the failure to breach another norm of international law (i.e., that the acts were otherwise lawful). As these written observations explain, a State's wrongdoing and consequent liability arises strictly from the creation of the transboundary harm itself. The transboundary harm alone is a necessary and sufficient condition of the obligation to provide redress.⁵
6. A State that knowingly or with wilful blindness permits transboundary harm also must, of course, provide full redress, at the very least.⁶ However, that does not detract from the underlying regime of strict liability.
7. It cannot be doubted that the foregoing correctly states the position of international law. The principles set forth above, and all the legal positions set forth in these written observations, are supported by reference to over 400 international law legal authorities. These include treaties, international agreements, non-binding inter-State instruments, State acts, decisions of the highest judicial authorities, writings of the most highly qualified publicists and more. These legal authorities come from every region on our planet. They span the epochs, from ancient times to the modern day. And they reflect a vast diversity of different circumstances. These over 400 authorities are merely the beginning of the legal support for the rights and obligations

⁴ *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion of 8 July 1996, I.C.J. Reports 1996*, p. 226 (“**Nuclear Weapons Advisory Opinion**”), paragraph 29, Annex 264.

⁵ *See* Section VI.G.

⁶ *See* Sections VI.G, VI.H and VI.K.

under international law identified in this submission. Undoubtedly, the written observations of other States will provide even more supporting authorities.

8. With respect, Barbados submits that the role for this Court, in light of this clear identification of applicable legal principles, is to apply them to the facts of climate change. In that respect, the answers to Chile and Colombia's request are straightforward. States that have, by permission or their own acts, contributed to climate change must now provide complete and effective remedy for the harms they caused. Moreover, those States cannot be excused from this obligation because it would be inconvenient or expensive. A State's obligation under the laws of State responsibility to remedy is not eliminated – and can only even arguably be reduced somewhat – by a risk of the most catastrophic of consequences on its population, not by slight inconvenience or high cost.
9. Climate change is a transboundary harm. At all relevant times, it has always been known to have been caused by anthropogenic greenhouse gas emissions. Indeed, the scientific basis for climate change through atmospheric carbon dioxide emission was comprehensively described over 130 years ago by the renowned Swedish chemist Svante Arrhenius.⁷ The dramatic consequences of anthropogenic gas emissions have been subsequently confirmed for at least the last seventy years, by many scientific and governmental institutions.⁸ Despite this, harmful anthropogenic emissions of greenhouse gases continued unabated.
10. The physical consequences of the decision to permit the expulsion of carbon dioxide and other greenhouse gases, in massive quantities for such an extended period of time, are as harmful as they are dramatic. They include, amongst other things: (a) rising land and ocean temperatures; (b) rising sea levels; (c) extreme weather events; (d) extreme harm to wildlife and ecosystems; and (e) acidification and harm to marine ecosystems. Every human being on this planet, just as every animal and plant, is and will be harmed by climate change.⁹

⁷ See paragraph 34.

⁸ See Section IV.A.

⁹ See Section IV.

11. States that did not contribute to climate change, including but not limited to Barbados, are now suffering these and other consequences. They suffer harm due to the acts and omissions of other States. In these circumstances, the States that caused climate change have an obligation under international law to provide effective and complete redress for these harms. The redress can and must include:
- a. widely distributed funding for climate change alleviation measures, through existing and future dedicated climate change funds;¹⁰
 - b. close State attention to climate change and investment in scientific research into its amelioration and mitigation;¹¹
 - c. significant technology transfer and know-how and capacity building measures to address the effects of climate change;¹² and
 - d. compensation to States and their peoples who are suffering from climate change.¹³
12. Like the rest of the world, the Americas are deeply affected by the climate emergency. As **Section VII** below details, the region is significantly adversely affected by the negative effects of climate change. Climate change harms American States in different ways. In particular, Caribbean States suffer the devastating consequences of climate change, especially small island States such as Barbados. At present, Barbados is suffering significant loss and damage caused by (a) the effects of climate change; and (b) taking action to mitigate and adapt to climate change.¹⁴ These effects and costs will only grow in future.
13. These written observations do not, of course, ‘assign blame’. They seek to assist the Court by articulating the legal consequences of established law based on the physical reality of climate change. Unlike in the *Nuclear Weapons Advisory Opinion*, the principles of international law related to these questions pertaining to climate change

¹⁰ See Section VI.J(i).

¹¹ See Section VI.J(iii).

¹² See Section VI.J(ii).

¹³ See Sections VI.H and VI.K.

¹⁴ See Section IV.

are settled.¹⁵ Transboundary harm requires full and effective remedy, under international law. The fact that the principle today must be applied to the widespread effects of climate change does not mean that it can be set aside or modified. The law of State responsibility and its obligations remain constant. Their application is, indeed, unquestionable.

¹⁵ See Section V.

II. INTRODUCTION

14. These written observations furnish information on certain of the questions submitted to the Court for an advisory opinion on the Climate Emergency and Human Rights by the Republic of Colombia and the Republic of Chile on 9 January 2023 (the “**Request**”), in accordance with Article 73(3) of the Rules of Procedure of the Court.
15. Barbados commends Colombia and Chile for requesting this advisory opinion from the Court. The Request is highly significant for the inter-American system. It comes at a critical time. Climate change has an ever-growing deleterious impact on the environment and, by extension, the enjoyment of the human rights protected under the American Convention on Human Rights,¹⁶ as well as other human rights treaties.
16. It is a matter of public record that Barbados has been at the forefront of the international climate change dialogue for a significant period of time. This includes its participation in collective action by small island States in relation to climate change. Two seminal examples of Barbados’s leadership in this field are: (a) the 2021 Bridgetown Declaration, which calls for action on the environmental dimension of COVID-19 sustainable development and recovery in Latin America and the Caribbean;¹⁷ and (b) the Bridgetown Initiative for the Reform of the Global Financial Architecture,¹⁸ which calls for collective action related to financial mechanisms available to developing States to address the disproportionate burden of climate change shouldered by these States.
17. These written observations to the Court provide a welcome opportunity for Barbados to continue its efforts at the forefront of global climate change initiatives. In order to enable Barbados to concentrate its assistance to the court in relation to these issues, Barbados’s observations are focused on the first four questions under heading F of the Request. Heading F of the Request is entitled “Regarding the shared and differentiated human rights obligations and responsibilities of States in the context of

¹⁶ See American Convention on Human Rights “Pact of San José, Costa Rica”, 22 November 1969, 1144 UNTS 123 (“**American Convention on Human Rights**”), Annex 1.

¹⁷ See Bridgetown Declaration, Report XXII Meeting of the Forum of Ministers of Environment of Latin America and the Caribbean, 1-2 February 2021, Annex III, UNEP/LAC-IG.XXII/7, 5 February 2021, Annex 183.

¹⁸ See The 2022 Bridgetown Agenda for the Reform of the Global Financial Architecture, *Government of Barbados, Ministry of Foreign Affairs and Foreign Trade*, 23 September 2022, Annex 187.

the climate emergency.” Barbados focuses on these questions because it considers that (a) they raise key issues in relation to the policy decisions of American States and the organisations within the inter-American system in relation to the climate emergency and (b) in answering them, Barbados provides a complete response to the core question animating this Request for an advisory opinion – the obligation of States in the face of the climate emergency.

18. Barbados respectfully expresses the hope that its views on these questions will assist the Court in advancing the rule of law in the context of the climate emergency.
19. **Section I** above provided a summary of these written observations. After this Introduction, **Section III** notes that the Court has jurisdiction to make this advisory opinion and should do so. **Section IV** explains that anthropogenic (i.e., human-made) emissions of greenhouse gases irrefutably cause damage and loss to all States and present and future generations. This has been known for over a century. **Section V** notes that this Court should answer the questions submitted by Chile and Colombia on the basis of international law as it exists.
20. **Sections VI** and **VII** answer each of the questions under heading F as follows:
 - a. **Section VI** answers:
 - i. the first question under Part 1 under heading F (“[w]hat considerations and principles should states and international organisations take into account, collectively and regionally, when analysing shared but differentiated responsibilities in the context of climate change, from the perspective of human rights and intersectionality?”) This Section explains that States are obligated 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; and
 - ii. the second question under Part 1 under heading F (“[h]ow should states act, both individually and collectively, to guarantee the right to redress for the damage caused by their acts and omissions in relation to the climate emergency, taking into account considerations of equity,

justice and sustainability?") This Section explains that States should offer reparations for damage caused by climate change as well as other forms of redress to assist other States in mitigating, adapting and repairing the negative impacts of climate change;

b. **Section VII** answers:

- i. the first question under Part 2 under heading F ("[h]ow should inter-State cooperation obligations be interpreted?") This Section explains that States should interpret inter-State cooperation obligations as including duties to notify, consult and negotiate, exchange information and assist in the mitigation, adaptation and reparation of the consequences of climate change; and
- ii. the second question under Part 2 under heading F ("[w]hat obligations and principles should guide State actions in order to ensure the right to life and survival of the most affected regions and populations in the different countries and in the region.") This Section explains that States should be guided by the obligations and principles set out in the answer to the first three questions under heading F.

21. **Section VIII** provides a conclusion to these written observations.

III. JURISDICTION AND ADMISSIBILITY

22. This Court is competent to render the advisory opinion requested by Chile and Colombia. It should do so. Should any State or international organisation submit that the Court is not competent, Barbados respectfully reserves the right to provide further submissions on this subject.
23. Previous advisory opinions rendered by this Court have fundamentally contributed to the development of international human rights law. This function of the Court is vital. Climate change is among the most pressing issues facing the world today. For this reason, the exercise of the Court’s advisory function in the present proceedings will be of critically important value. If there is any occasion for this Court to exercise its discretion to give an advisory opinion, it is this.

A. The Court has jurisdiction over the Request

24. Colombia and Chile have appropriately submitted the Request on the basis of Article 64(1) of the American Convention on Human Rights.¹⁹
25. Their Request correctly requests answers about the interpretation of the obligations in the American Convention on Human Rights, the Protocol of San Salvador and other treaties concerning the protection of human rights in the American States.²⁰
26. As this Court has clarified the phrase “other treaties concerning the protection of human rights in the American States” is expansive.²¹ The term “American States” means all States that have the ability to ratify the American Convention on Human

¹⁹ See Cover letter to Request, 9 January 2023, page 1.

²⁰ See Request, pages 8-13 (including, for example, footnotes 38 and 51). See also *The Environment and Human Rights (State Obligations in Relation to The Environment in the Context of the Protection and Guarantee of the Rights to Life and to Personal Integrity: Interpretation and Scope of Articles 4(1) and 5(1) in Relation to Articles 1(1) and 2 of the American Convention on Human Rights)*. Advisory Opinion OC-23/17 of November 15, 2017. Series A No. 23 (“**IACtHR 2017 Advisory Opinion**”), paragraphs 16-17, Annex 235.

²¹ IACtHR 2017 Advisory Opinion, paragraph 14, Annex 235. See also American Convention on Human Rights, Annex 1; Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social, and Cultural Rights “Protocol of San Salvador”, 17 November 1988, OAS Treaty Series No. 69 (“**Protocol of San Salvador**”), Annex 1 Bis; Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean, 4 March 2018, 3398 UNTS 1 (“**Escazú Agreement**”), Annex 94; Convention on the Rights of the Child, 20 November 1989, 1577 UNTS 3, Annex 41 (see Request, pages 8-12, including, for example, footnotes 38 and 51).

Rights (i.e., any Member State of the Organization of American States (the “OAS”)).²² The term “treaties concerning the protection of human rights” means treaties having a bearing upon, affect or are of interest in the area of human rights, but the principal purpose of the treaty need not be human rights.²³ It therefore includes the treaties mentioned in the Request.²⁴

B. The Request meets the admissibility requirements

27. This advisory opinion of the Court is of great significance. This opinion will guide American States’ future actions and policy decisions in the interrelated fields of climate change and human rights. This Court’s pronouncements on the obligations of States with respect to the climate emergency will steer the policies of all States party to the American Convention on Human Rights, as well as those of the wider international community. They will also influence the policy of the OAS and other organisations part of the inter-American system. In addition, the Court’s advisory opinion will contribute a unique human rights perspective that is not offered by other advisory opinions currently before other international courts and tribunals, namely the ICJ and the International Tribunal for the Law of the Sea (the “ITLOS”).²⁵
28. The Request meets the formal and substantive requirements for admissibility, such that this Court may issue an advisory opinion in this case.
29. The Request complies with the formal requirements in Articles 70 and 71 of the Rules of Procedure. This is because the Request:

²² See “Other Treaties” Subject to the Advisory Function of the Court (Art. 64 American Convention on Human Rights). Advisory Opinion OC-1/82 of September 24, 1982. Series A No. 1 (“**IACtHR Advisory Opinion OC-1/82**”), paragraph 35, Annex 236.

²³ See IACtHR Advisory Opinion OC-1/82, paragraph 52, Annex 236.

²⁴ For example, the American Convention on Human Rights, Annex 1; Protocol of San Salvador, Annex 1 Bis; Escazú Agreement, Annex 94; Convention on the Rights of the Child, 20 November 1989, 1577 UNTS 3, Annex 41 (see Request, pages 8-12, including, for example, footnotes 38 and 51).

²⁵ See *Obligations of States in respect of Climate Change (Request for Advisory Opinion)*, Order of 20 April 2023, I.C.J. General List No. 187, Annex 255; *Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law (Request for Advisory Opinion submitted to the Tribunal)*, Order 2022/4 of 16 December 2022, ITLOS Case No. 31, Annex 287.

- a. states with precision the specific questions on which the opinion of the Court is being sought (per Article 70(1));²⁶
 - b. identifies the provisions to be interpreted (per Article 70(2));²⁷
 - c. identifies the considerations giving rise to the Request (per Article 70(2));²⁸
 - d. identifies the names and addresses of the Agent or Delegates (per Article 70(2));²⁹
 - e. indicates the name of the other treaties concerning the protection of human rights in the American States and parties thereto (per Article 71(1));³⁰
 - f. indicates the specific questions on which the opinion of the Court is being sought in relation to other treaties concerning the protection of human rights in the American States (per Article 71(1));³¹ and
 - g. indicates the considerations giving rise to the Request in relation to other treaties concerning the protection of human rights in the American States (per Article 71(1)).³²
30. The Request complies with the substantive requirements of this Court for the request to “relate to the characteristics it has recogni[s]ed for the exercise of its advisory function.”³³ However, as this Court has stated, it “must have compelling reasons founded in the conviction that the request exceeds the limits of its advisory jurisdiction under the Convention before it may refrain from complying with a request

²⁶ See Request, pages 8-13.

²⁷ See Request, pages 8-12 (including, for example, footnotes 38 and 51).

²⁸ See Request, pages 1-8.

²⁹ See Cover letter to Request, 9 January 2023, page 1.

³⁰ See Request, pages 8-12 (including, for example, footnotes 38 and 51).

³¹ See Request, pages 8-13.

³² See Request, pages 1-8.

³³ IACtHR 2017 Advisory Opinion, paragraph 20, Annex 235.

for an opinion.”³⁴ No such compelling reasons exist. To the contrary, there are many important reasons for why the Court should answer the Request.

31. First, as Chile and Colombia describe in the Request³⁵ and as noted in **Section IV**, the climate emergency is a real concern for all States and particularly small island developing States like Barbados. Therefore, this Request has foreseeable application to concrete situations that justify the need for an advisory opinion.³⁶
32. Second, this Court’s interpretation has real value for all members of the inter-American system. This Court has noted that its advisory function “represents ‘a service that the Court is able to provide to all the members of the inter-American system in order to help them comply with their international commitments [concerning human rights].’”³⁷ In the IACtHR 2017 Advisory Opinion, an advisory opinion in which the Court interpreted human rights and environmental obligations, this Court therefore noted that its response “will be of real value for the countries of the region” because it “will identify, clearly and systematically the State obligations in relation to the protection of the environment within the framework of their obligation to respect and to ensure the human rights.”³⁸ A response to this Request will do the same. The clear link between human rights and the environment and the need to promote environmental protection has also been recognised by the OAS General Assembly and upheld by this Court, as further discussed below in **Section VI.A**.
33. Third, the Court’s interpretation will help strengthen the system for the protection of human rights. In the IACtHR 2017 Advisory Opinion, the Court noted that its advisory function not only clarifies the meaning, purpose and reasons for international human rights norms. It also “above all, assists OAS Member States and organs to comply fully and effectively with their relevant international obligations, and to define

³⁴ IACtHR Advisory Opinion OC-1/82, paragraph 30, Annex 236.

³⁵ *See* Request, pages 1-8.

³⁶ *See* IACtHR 2017 Advisory Opinion, paragraph 20, Annex 235.

³⁷ IACtHR 2017 Advisory Opinion, paragraph 23, Annex 235.

³⁸ IACtHR 2017 Advisory Opinion, paragraph 23, Annex 235.

and implement public policies to protect human rights.”³⁹ The same applies to an advisory opinion answering this Request.

³⁹ IACtHR 2017 Advisory Opinion, paragraph 24, Annex 235. *See also* IACtHR 2017 Advisory Opinion, paragraphs 29 and 30, Annex 235.

IV. FACTUAL BACKGROUND

34. The chemical and planetary dynamics that cause climate change have been widely known, and scientifically accepted for over 150 years; indeed they were fully described by Svante Arrhenius as early as 1896 and have been confirmed for at least 70 years (*see Section IV.A*).⁴⁰ There is nothing new or surprising in what is discussed below. The consequences of anthropogenic greenhouse gas emissions were known – and have been known – for more than a century. What has changed is that, today, the dramatic impacts of anthropogenic gas emissions have become, as predicted, deeply vexing (*see Section IV.B*).

A. From the 1850s onwards, the harmful impacts of anthropogenic carbon gas emissions have been known and confirmed

35. The consequential impacts on the climate of greenhouse gas emissions have been studied, confirmed and reiterated by scientists and experts for well over a century-and-a-half.
36. Historically, the impacts of atmospheric carbon were known as early as 1856, when a paper published in the *American Journal of Science and Arts* explained that “[a]n atmosphere of [carbon acid/carbon dioxide] would give to our earth a high temperature.”⁴¹
37. By 1861, it had been scientifically extrapolated that anthropogenic carbon gas emissions would necessarily cause “changes of climate.” An 1861 paper published by the Royal Society of London explained that:

if . . . the chief influence be exercised by the aqueous vapour, every variation of this constituent must produce a change of climate. Similar remarks would apply to the carbonic acid [/carbon dioxide] diffused through the air; while an almost inappreciable admixture of any of the

⁴⁰ See S. Arrhenius, “On the Influence of Carbonic Acid in the Air upon the Temperature of the Ground”, *Philosophical Magazine and Journal of Science*, 1896, pages 237-276, Annex 339.

⁴¹ E. N. Foote, “Circumstances affecting the Heat of the Sun’s Rays”, *American Journal of Science and Arts*, 1856, page 383, Annex 337.

hydrocarbon vapours would produce great effects on the terrestrial rays and produce corresponding changes of climate.⁴²

38. The definitive description of climate change was then provided by the renowned chemist Svante Arrhenius in 1896, when he stated in the *Philosophical Magazine and Journal of Science* that:

[a]ll authors agree in the view that there prevails an equilibrium in the temperature of the earth and its atmosphere. The atmosphere must, therefore, radiate as much heat to space as it gains partly through the absorption of the sun's rays, partly through the radiation from the hotter surface of the earth and by means of ascending currents of air heated by contact with the ground. On the other hand, the earth loses just as much heat by radiation to space and to the atmosphere as it gains by absorption of the sun's rays.

...

Thus if the quantity of carbonic acid [/carbon dioxide] increases in geometric progression, the augmentation of the temperature will increase nearly in arithmetic progression.⁴³

39. By 1899, a paper in *The Journal of Geology* explained with startling accuracy how doubling or tripling the then still relatively lower level of carbon dioxide in the atmosphere would result in a rise in temperatures equivalent to those of a long past geological era, the Middle Tertiary (also known as the Miocene) era – around 23 million to 5 million years ago – when humans were not in existence yet. It stated that:

[t]he general results assignable to a greatly increased or a greatly reduced quantity of atmospheric carbon dioxide and water may be summarized as follows . . . An increase, by causing a larger absorption of the sun's radiant energy, raises the average temperature, while a reduction lowers it. The estimate of Dr. Arrhenius, based upon an elaborate mathematical discussion of the observations of Professor Langley, is that an increase of the carbon dioxide to the amount of two or three times the present content would elevate the average temperature 8° or 9°C, and would bring on a mild climate analogous to that which prevailed in the Middle Tertiary age.⁴⁴

⁴² J. Tyndall, "On the Absorption and Radiation of Heat by Gases and Vapours, and on the Physical Connexion of Radiation, Absorption, and Conduction", *Philosophical Transactions of the Royal Society of London*, 1861, page 28, Annex 338.

⁴³ S. Arrhenius, "On the Influence of Carbonic Acid in the Air upon the Temperature of the Ground", *Philosophical Magazine and Journal of Science*, 1896, pages 254-267, Annex 339.

⁴⁴ T. C. Chamberlin, "An Attempt to Frame a Working Hypothesis of the Cause of Glacial Periods on an Atmospheric Basis", *The Journal of Geology*, 1899, page 551, Annex 340.

40. Drawing on these observations, by 1938, another paper published by the British Royal Meteorological Society drew the direct link and warned of the result of human emissions of fossil fuels and the rise in global temperatures. It stated that the influence of “the activities of man” on “the making of our climates and weather” is “not only possible, but is actually occurring at the present time.”⁴⁵ It also advanced that “[t]he temperature observations at 200 meteorological stations are used to show that world temperatures have actually increased at an average rate of 0.005°C. per year during the past half century.”⁴⁶ The same paper concluded that the natural absorption (the offtake) did not balance human emissions (the artificial production). Instead, it properly stated that:

great many factors which influence the carbon cycle in nature have been examined in order to determine the quantitative relation between the natural movements of this gas and the amounts produced by the combustion of fossil fuel. . . . The general conclusion from a somewhat lengthy investigation on the natural movements of carbon dioxide was that there is no geological evidence to show that the *net* offtake of the gas is more than a small fraction of the quantity produced from fuel. (The artificial production at present is about 4,500 million tons per year.)⁴⁷

(Emphasis in the original.)

41. By 1940, scientific analysis confirmed that “[i]n the period between 1900 and 1935 the amount of coal and oil burnt has been very nearly 50,000 million tons, equal to the direct addition to the atmosphere of 150,000 million tons of CO₂.”⁴⁸ The same paper again dispelled the idea that the ocean could absorb such additional carbon dioxide from the Earth’s atmosphere. It noted that:

[t]he importance of the sea water in regulating the amount of CO₂ in the air has already been mentioned, and one would expect to find that a considerable part of the gas produced from fuel had been absorbed by

⁴⁵ G. Callendar, “The artificial production of carbon dioxide and its influence on temperature”, *Quarterly Journal of the Royal Meteorological Society*, 1938, page 223, Annex 341.

⁴⁶ G. Callendar, “The artificial production of carbon dioxide and its influence on temperature”, *Quarterly Journal of the Royal Meteorological Society*, 1938, page 223, Annex 341.

⁴⁷ G. Callendar, “The artificial production of carbon dioxide and its influence on temperature”, *Quarterly Journal of the Royal Meteorological Society*, 1938, page 224, Annex 341.

⁴⁸ G. Callendar, “Variations of the amount of carbon dioxide in different air currents”, *Quarterly Journal of the Royal Meteorological Society*, 1940, page 399, Annex 342.

the sea; but the observations . . . appear to show that all this extra gas has remained in the air.⁴⁹

42. In 1949, another scientific paper in the publication *Weather* yet again confirmed that the burning of fossil fuel led to more solar heat being trapped in the Earth's atmosphere, i.e., increased temperatures. It noted that "the climates of the world are behaving in a manner which suggests that slightly more solar heat is being retained in the atmosphere."⁵⁰ It also observed that:

[i]t is only during the present century that man has exerted his influence on a sufficient scale to disturb nature's slow-moving carbon-balance, but now his demand for heat and power has led to the transfer of large quantities of "fossil" carbon from the rocks to the air.⁵¹

43. In 1956, a paper published in *Tellus* posited that temperatures would increase by 3.6°C if carbon dioxide concentration doubled. It noted that "in order to restore equilibrium, the surface temperature must rise 3.6°C if the CO₂ concentration is doubled and the surface temperature must fall 3.8°C if the CO₂ concentration is halved."⁵² The paper emphasised that this increase in carbon dioxide in the atmosphere is caused by anthropogenic emissions of greenhouse gases, including the combustion of fossil fuels. It also concluded that human activities in the burning of fossil fuels resulted in a steep increase in carbon dioxide in the atmosphere. The paper observed that:

[i]n recent years industrial and other activities of man are adding considerably more CO₂ to the atmosphere than any of the above factors from the inorganic world . . . The combustion of fossil fuels is adding 6 x 10⁹ tons per year of CO₂ to the atmosphere at the present time. In addition such activities as the clearance of forests, the drainage and cultivation of lands, and industrial processes such as lime burning and fermentation release additional amounts of CO₂ that are not included in the above estimate. This is a large enough contribution to upset the carbon dioxide balance and to increase the amount in the atmosphere appreciably. Some of this additional CO₂ is used in photosynthesis, but as already discussed, very little of the extra CO₂ is permanently lost to the atmosphere since there is a corresponding increase in the rates of

⁴⁹ G. Callendar, "Variations of the amount of carbon dioxide in different air currents", *Quarterly Journal of the Royal Meteorological Society*, 1940, pages 399-400, Annex 342.

⁵⁰ G. Callendar, "Can carbon dioxide influence climate?", *Weather*, 1949, page 314, Annex 343.

⁵¹ G. Callendar, "Can carbon dioxide influence climate?", *Weather*, 1949, page 312, Annex 343.

⁵² G. Plass, "The Carbon Dioxide Theory of Climate Change", *Tellus*, 1956 ("The Plass Paper"), page 142, Annex 344.

decay and respiration. Another part of this additional CO₂ is absorbed by the oceans; this factor is discussed in detail in the following sections. However, it seems probable that these losses are small at the present time. If this is true, then a major portion of the extra CO₂ from man's activities will remain in the atmosphere and the CO₂ concentration will increase for at least several centuries to come. If this extra CO₂ is remaining in the atmosphere, the concentration is increasing from this source at the rate of 30 per cent a century.⁵³

...

At the present time the burning of fossil fuels is adding more than 6 x 10⁹ tons per year of CO₂ to the atmosphere. Other activities of man such as the clearance of forests and the drainage and cultivation of land add additional amounts of CO₂ to the atmosphere each year. The total amount added each year from these sources is several orders of magnitude larger than any factor that contributes to the CO₂ balance from the inorganic world at the present time . . . Therefore, this additional factor has greatly disturbed the CO₂ balance. If all this additional CO₂ remains in the atmosphere, there will be 30 per cent more CO₂ in the atmosphere at the end of the twentieth century than at the beginning. If no other factors change, man's activities are increasing the average temperature by 1.1°C per century.⁵⁴

44. The paper then drew the undeniable conclusion that “[e]ven if the oceans absorb CO₂ much more rapidly than has been assumed here, the accumulation of CO₂ in the atmosphere will become an increasingly important problem through the centuries.”⁵⁵
45. In 1957, two scientific papers again warned of the excessive amount of carbon dioxide humanity was adding to the Earth's atmosphere. The first, published again in *Tellus*, cautioned that humanity was carrying out:

a large scale geophysical experiment of a kind that could not have happened in the past nor be reproduced in the future. Within a few centuries we are returning to the atmosphere and oceans the concentrated organic carbon stored in sedimentary rocks over hundreds of millions of years.⁵⁶

⁵³ The Plass Paper, pages 143-144, Annex 344.

⁵⁴ The Plass Paper, page 149, Annex 344.

⁵⁵ The Plass Paper, page 149, Annex 344.

⁵⁶ R. Revelle & H. Suess, “Carbon Dioxide Exchange Between Atmosphere and Ocean and the Question of an Increase of Atmospheric CO₂ during the Past Decades”, *Tellus*, 1957, page 19, Annex 345.

46. The paper also observed that “[i]n contemplating the probably large increase in CO₂ production by fossil fuel combustion in coming decades we conclude that a total increase of 20 to 40 % in atmospheric CO₂ can be anticipated.”⁵⁷

47. The second paper, published in 1957 by the American Geophysical Union, similarly noted:

[o]f particular interest is the fate of the enormous quantity of carbon dioxide which has been introduced into the atmosphere since the beginning of the industrial revolution in the 19th century, and the manner in which the added carbon dioxide has been distributed in the carbon cycle. Although appreciable amounts of carbon dioxide have undoubtedly been added from soils by tilling of land, apparently a much greater amount has resulted from the combustion of fossil fuels.⁵⁸

48. In 1959, similar remarks were again repeated in another paper in a treatise, where it was said that:

[i]t is obvious that an addition of CO₂ to the atmosphere will only slightly change the CO₂ content of the sea but appreciably effect the CO₂ content of the atmosphere.⁵⁹

49. In 1961, a letter by the scientist Gilbert Plass to the editor of the scientific journal *Tellus* noted that the increase in carbon dioxide caused a rise in global temperatures. The letter stated: “[m]any of the climatic changes which have occurred over the past several billion years of the earth’s history can readily be explained by variations of the atmospheric CO₂ amount . . . the difference between our two values for the temperature change is significant for the explanation of the world-wide temperature increase which has occurred in the twentieth century.”⁶⁰ This letter references Gilbert Plass’s earlier paper from 1956, in which he concluded that:

[t]he radiation calculations predict a definite temperature change for every variation in CO₂ amount in the atmosphere. These temperature

⁵⁷ R. Revelle & H. Suess, “Carbon Dioxide Exchange Between Atmosphere and Ocean and the Question of an Increase of Atmospheric CO₂ during the Past Decades”, *Tellus*, 1957, page 26, Annex 345.

⁵⁸ H. R. Brannon et al., “Radiocarbon evidence on the dilution of atmospheric and oceanic carbon by carbon from fossil fuels”, *Transactions, American Geophysical Union*, 1957, page 643, Annex 346.

⁵⁹ B. Bolin & E. Eriksson, “Changes in the carbon dioxide content of the atmosphere and sea due to fossil fuel combustion”, in *THE ATMOSPHERE AND THE SEA IN MOTION: SCIENTIFIC CONTRIBUTIONS TO THE ROSSBY MEMORIAL VOLUME*, B. Bolin ed, (Rockefeller Institute Press, 1959), page 131, Annex 347.

⁶⁰ L. D. Kaplan, “The Influence of Carbon Dioxide Variations on the Atmospheric Heat Balance”, Letter to the Editor, *Tellus*, 1961, page 296, Annex 348.

changes are sufficiently large to have an appreciable influence on the climate.⁶¹

50. In 1961, the British Royal Meteorological Society published another paper noting that the additional carbon dioxide in the atmosphere leads to temperature increase at different latitudes: it found that “a considerable fraction of the extra CO₂, and the warming effect which goes with it, may still remain in the northern westerly circulation to give the greater temperature rise there than in other latitudes.”⁶² This paper also looked back on the scientific agreement surrounding climate change, noting that:

[s]ome years ago the writer suggested that rising temperature trends, already observed in certain regions, could be due to back radiation from the extra CO₂ produced by fossil fuel combustion. (Callendar 1938, 1949). Since then calculations on atmospheric radiation by Plass* (1953) have supported this view, and he considers that variations of atmospheric carbon dioxide are an important factor in climatic change (Plass 1956).⁶³

51. In 1962, the US National Academy of Sciences – National Research Council (the definitive scientific institution in the United States of America) explained in a study, in plain terms, that the burning of fossil fuels leads to a higher amount of carbon dioxide in the atmosphere, which causes temperatures to rise as well as other weather effects and ecological misbalances. It stated that:

[t]here is evidence that the greatly increasing use of the fossil fuels, whose material contents after combustion are principally H₂O and CO₂, is seriously contaminating the earth’s atmosphere with CO₂. Analyses indicate that the CO₂ content of the atmosphere since 1900 has increased 10 percent. Since CO₂ absorbs long-wavelength radiation, it is possible that this is already producing a secular climatic change in the direction of higher average temperatures. This could have profound effects both on the weather and on the ecological balances.

In view of the dangers of atmospheric contamination by both the waste gases of the fossil fuels and the radioactive contaminates from

⁶¹ The Plass Paper, page 142, Annex 344.

⁶² G. Callendar, “Temperature fluctuations and trends over the earth”, *Quarterly Journal of The Royal Meteorological Society*, 1961, page 10, Annex 349.

⁶³ G. Callendar, “Temperature fluctuations and trends over the earth”, *Quarterly Journal of The Royal Meteorological Society*, 1961, page 9, Annex 349.

nuclear power plants, Professor Hutchinson urges serious consideration of the maximum utilization of solar energy.⁶⁴

52. In 1963, a scientific paper published by the Conservation Foundation concluded with a high level of certainty that the increase in carbon dioxide caused global temperatures to rise to the devastating effect of melting the polar ice caps, which in turn causes sea levels to rise and the warming of the oceans. It stated:

[i]t seems quite certain that a continuing rise in the amount of atmospheric carbon dioxide is likely to be accompanied by a significant warming of the surface of the earth which by melting the polar ice caps would raise sea level and by warming the oceans would change considerably the distributions of marine species including commercial fisheries.⁶⁵

53. The same paper also offered an ominous warning for future generations. It stated:

[t]he effects of a rise in atmospheric carbon dioxide are world-wide. They are significant not to us but to the generations to follow. The consumption of fossil fuel has increased to such a pitch within the last half century that the total atmospheric consequences are matters of concern for the planet as a whole.⁶⁶

54. In 1965, the US President's Science Advisory Committee released its Report of the Environmental Pollution Panel for the President's Science Advisory Committee.⁶⁷ This seminal report concluded that an increase in carbon dioxide emissions driven by burning fossil fuels could "produce measurable and perhaps marked changes in climate, and will almost certainly cause significant changes in temperature and other properties of the stratosphere."⁶⁸ It explained in clear terms the greenhouse effect of carbon dioxide released into the atmosphere by human industrial activities. It stated that:

⁶⁴ "Energy Resources: A Report to the Committee on Natural Resources of the National Academy of Sciences", *United States National Academy of Sciences – National Research Council*, 1962, page 96, Annex 350.

⁶⁵ "Implications of Rising Carbon Dioxide of the Atmosphere", *The Conservation Foundation*, 1963, page 1, Annex 351.

⁶⁶ "Implications of Rising Carbon Dioxide of the Atmosphere", *The Conservation Foundation*, 1963, page 1, Annex 351.

⁶⁷ See "Report of the Environmental Pollution Panel for the President's Science Advisory Committee", *The White House*, November 1965 ("**1965 Environmental Report**"), Annex 352.

⁶⁸ 1965 Environmental Report, pages 126-127, Annex 352.

[w]ithin a few short centuries, we are returning to the air a significant part of the carbon that was slowly extracted by plants and buried in the sediments during half a billion years. . . . The part that remains in the atmosphere may have a significant effect on climate: carbon dioxide is . . . a strong absorber and back radiator of infrared radiation, . . . consequently, an increase of atmospheric carbon dioxide could act, much like the glass in a greenhouse, to raise the temperature of the lower air.⁶⁹

55. The 1965 Environmental Report described, again in clear terms, the possible effects of an increase in atmospheric carbon dioxide, such as are well-known today, including the melting of the Arctic ice caps, the rise of sea levels, warming of seawater and increased acidity of freshwaters.⁷⁰ It also noted that climate change could have a negative impact on humans, i.e., “the climatic changes that may be produced by the increased CO₂ content could be deleterious from the point of view of human beings.”⁷¹

56. In the same month that the 1965 Environmental Report was published, at the 45th Annual Meeting of the American Petroleum Institute, the then-President of this business association stated that:

[o]ne of the most important predictions of the report is that carbon dioxide is being added to the earth’s atmosphere by the burning of coal, oil, and natural gas at such a rate that by the year 2000 the heat balance will be so modified as possibly to cause marked changes in climate beyond local or even national efforts. The report further states, and I quote: ‘. . . the pollution from internal combustion engines is so serious, and is growing so fast, that an alternative nonpolluting means of powering automobiles, buses, and trucks is likely to become a national necessity.’⁷²

57. In 1966, a scientist wrote an essay in a bundle titled “Some thoughts on the year 2000,” where he argued that:

[a]lready there are signs that air pollution has become a global problem and could develop catastrophically in as little as ten years. In the last few years it has been realised that the sea also is not an infinite sink for waste products, particularly where these are

⁶⁹ 1965 Environmental Report, page 113, Annex 352.

⁷⁰ See 1965 Environmental Report, pages 123-124, Annex 352.

⁷¹ 1965 Environmental Report, page 127, Annex 352.

⁷² “Proceedings of the American Petroleum Institute: Annual Meeting General Session”, *American Petroleum Institute*, 1965, page 13, Annex 353.

distributed as hydrocarbons at the air water interface where dilution can only take place in two dimensions.⁷³

58. In 1967, a paper in the *Journal of the Atmospheric Sciences* estimated that “a doubling of the CO₂ content in the atmosphere [will have] the effect of raising the temperature of the atmosphere . . . by about 2C.”⁷⁴
59. In 1968, the Stanford Research Institute prepared a report for the American Petroleum Institute which cautioned that rising carbon dioxide levels in the atmosphere would result in increases in temperature at the Earth’s surface.⁷⁵ It also underscored that a significant temperature increase could lead to sea level changes.⁷⁶ In particular, this report stated that:

[w]e are concerned with the possible changes in atmospheric CO₂ content because CO₂ plays a significant role in establishing the thermal balance of the earth. This occurs because CO₂ is a strong absorber and back radiator in the infrared portion of the spectrum, especially between 12 and 18μ. As such CO₂ prevents the loss of considerable heat energy from the earth and radiates it back to the lower atmosphere, the so-called “greenhouse” effect. Thus the major changes which are speculated about as possibly resulting from a change in atmospheric CO₂ are related to a change in the earth’s temperature. . . If the earth’s temperature increases significantly, a number of events might be expected to occur, including the melting of the Antarctic ice cap, a rise in sea levels, warming of the oceans, and an increase in photosynthesis.⁷⁷

60. The same report even highlighted this finding in the summary at the beginning. It noted that:

[i]f CO₂ levels continue to rise at present rates, it is likely that noticeable increases in temperatures could occur. Changes in temperature on a world-wide scale could cause major changes in the

⁷³ J. Lovelock, *Some thoughts on the year 2000: The future as seen half a century ago*, in THE COLOURS OF ENERGY: ESSAYS ON THE FUTURE OF ENERGY IN SOCIETY, eds. G. Kramer & B. Vermeer (Shell International BV, 2015), PDF page 83, Annex 469.

⁷⁴ S. Manabe & R. Wetherald, “Thermal Equilibrium of the Atmosphere with a Given Distribution of Relative Humidity”, *Journal of the Atmospheric Sciences*, 1967, page 241, Annex 354.

⁷⁵ See “Report on Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants”, *Stanford Research Institute*, February 1968 (“**1968 Report on Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants**”), page 108, Annex 355.

⁷⁶ See 1968 Report on Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants, page 108, Annex 355.

⁷⁷ 1968 Report on Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants, pages 107-108, Annex 355.

earth's environment over the next several hundred years including change in the polar ice caps. It seems ironic that given this picture of the likely result of massive CO₂ emissions so little concern is given to CO₂ as an important air pollutant.⁷⁸

61. This 1968 report also drew attention to the fact that “[t]he possibility that changes in atmospheric CO₂ could change world climate is not a new idea.”⁷⁹
62. Subsequently, at a meeting of the UN General Assembly in 1968, the US Ambassador to the UN spoke with great concern about the possibility of climate change resulting from the increase of anthropogenic greenhouse gas emissions from the burning of fossil fuels. He suggested that even if there were doubts about the consequences of climate change, these consequences would be so devastating that humanity should not take the risk of them materialising. Ambassador Wiggins addressed the leaders of the world as follows:

[a]nd what are we going to do about the steadily rising burden of carbon dioxide in the earth's atmosphere? In the past hundred years, since fossil fuels began to be burned in huge quantities, atmospheric carbon dioxide has increased by close to 10 per cent. That increase will probably total about 25 per cent by the year 2000, given the rapidly accelerating rate of fuel consumption. Will the resulting ‘green-house’ effect cause a permanent warming of the earth's climate, and perhaps even a rise in the world sea level as the polar ice caps melt? No one is sure, though much of human destiny could depend on the answer.⁸⁰

63. At this same meeting, the Representative of the Republic of India to the UN also noted that “nearly everyone agrees that there is an environment crisis.”⁸¹ He noted that the “problems of human environment” that have an international nature are “disturbances in temperatures and destruction of ecological systems on land and water.”⁸²

⁷⁸ 1968 Report on Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants, page 8, Annex 355.

⁷⁹ 1968 Report on Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants, page 105, Annex 355.

⁸⁰ UN General Assembly, Agenda Item 91, 1733rd Plenary Meeting, A/PV.1733, 3 December 1968 (“**General Assembly 23rd Session**”), paragraph 38, Annex 150.

⁸¹ General Assembly 23rd Session, paragraph 125, Annex 150.

⁸² General Assembly 23rd Session, paragraph 128, Annex 150.

64. In 1970, a paper published by the National Academy of Sciences found that at current rates of carbon dioxide increase in the atmosphere would cause a “very substantial change” in global temperatures.⁸³ The paper noted that:

[t]he effect of carbon dioxide is to increase the earth’s temperature by absorbing outgoing terrestrial radiation. Recent numerical studies have indicated that a 10% increase in carbon dioxide should result, on the average, in a temperature increase of about 0.3°C at the earth’s surface. The present rate of increase of 0.7 ppm per year would therefore (if extrapolated to 2000 A.D.) result in a warming of about 0.6°C — a very substantial change.⁸⁴

65. In 1970, the UK House of Commons also discussed the greenhouse effect and the consequences of the resulting climate change. One member made the following remarks in this respect:

[t]his has a “greenhouse” effect because it allows the sun’s rays to come down but prevents them from escaping into the atmosphere.

...

if this goes on, it is thought that by the end of the century the temperature of the earth could be raised by two degrees Centigrade, and this would begin to melt the ice caps. Water generated by this melting process could, they say, be sufficient in mass to flood many cities. But all is not lost. We are pumping so much grit into the air that the sun’s rays are not able to get through, and they are deflected back into the atmosphere. The ice-cap thus is catching up with us.⁸⁵

66. In 1974, the US Central Intelligence Agency concluded a report titled “A Study of Climatological Research as it Pertains to Intelligence Problems.”⁸⁶ The first sentence of this report highlighted the global destabilising effect of climate change. It noted:

[t]he western world’s leading climatologists have confirmed recent reports of a detrimental global change. The stability of most nations is based upon a dependable source of food, but this stability will not be possible under the new climatic era. A forecast by the University

⁸³ G.S. Benton, “Carbon Dioxide and its Role in Climate Change”, *Proceedings of the National Academy of Sciences*, 1970, page 898, Annex 356.

⁸⁴ G.S. Benton, “Carbon Dioxide and its Role in Climate Change”, *Proceedings of the National Academy of Sciences*, 1970, page 898, Annex 356.

⁸⁵ Statement by Mr C. Mather, Environmental Pollution, United Kingdom Parliament Hansard, Volume 804, 21 July 1970, column 332, Annex 152.

⁸⁶ “A Study of Climatological Research as it Pertains to Intelligence Problems”, *The United States of America Central Intelligence Agency*, August 1974, Annex 357.

of Wisconsin projects that the earth's climate is returning to that of the neo-boreal era (1600-1850) — an era of drought, famine, and political unrest in the western world.⁸⁷

67. In 1975, a paper in the journal *Science* gravely warned that “[i]t is possible that we are on the brink of a several-decades-long period of rapid warming.”⁸⁸ It explained the delayed onset of climatic change as follows:

the natural climatic cooling which, since 1940, has more than compensated for the carbon dioxide effect, will soon bottom out. Once this happens, the exponential rise in the atmospheric carbon dioxide content will tend to become a significant factor and by early in the next century will have driven the mean planetary temperature beyond the limits experienced during the last 1000 years.⁸⁹

68. The report also noted in more detail:

[t]he major point of the argument is that over the past 30 years the warming trend due to CO₂ has been more than countered by a natural cooling. This compensation cannot long continue both because of the rapid growth of the CO₂ effect and because the natural cooling will almost certainly soon bottom out. We may be in for a climatic surprise. The onset of the era of CO₂-induced warming may be much more dramatic than in the absence of natural climatic variations.⁹⁰

and concluded:

[g]lobal temperature would begin a dramatic rise which would continue for about four decades (that is, half the 80-year cycle). This warming would by the year 2000 bring average global temperatures beyond the range experienced during the last 1000 years.⁹¹

69. Also in 1975, another paper used the term “greenhouse effect” to describe the warming effect of the additional carbon dioxide in the atmosphere due to the burning of fossil fuels. It also warned of “major climatic changes.” It stated that:

[e]nergy from fossil sources has a specific problem: the release of CO₂. Even if all other by-products, i.e. SO₂; or NO_x, were retained,

⁸⁷ “A Study of Climatological Research as it Pertains to Intelligence Problems”, *The United States of America Central Intelligence Agency*, August 1974, page 1, Annex 357.

⁸⁸ W. S. Broecker, “Climatic Change: Are We on the Brink of a Pronounced Global Warming?”, *Science*, 1975 (“**1975 Broecker Paper**”), page 460, Annex 358.

⁸⁹ 1975 Broecker Paper, page 460, Annex 358.

⁹⁰ 1975 Broecker Paper, page 463, Annex 358.

⁹¹ 1975 Broecker Paper, page 462, Annex 358.

CO₂ would still be released into the atmosphere: Increases in the CO₂ content of the atmosphere could lead to the so-called greenhouse effect, i.e. an increase in average global temperature to overcome the CO₂ infrared absorption barrier of the atmosphere. This has been estimated to be perhaps as high as 1° to 2°C for a doubling of the CO₂ content in the atmosphere, which would be enough to induce major climatic changes.⁹²

70. Another paper in *Science* of that year also again noted how carbon dioxide creates a greenhouse effect. It noted that “[t]his trapping of the surface radiation by the infrared bands, also known as the greenhouse effect, would tend to increase the surface and atmospheric temperature.”⁹³
71. In 1976, a paper published (yet again) in *Tellus* alarmingly found that within 12 years the carbon dioxide rate has increased by 60%. It stated: “the change in [CO₂] rate roughly approximates that of fossil fuel combustion which was 60% higher in 1971 than in 1959.”⁹⁴
72. In 1977, a paper (yet again) in *Science* offered a slightly lower estimate than the paper discussed above, yet no less worrying estimate of the increase in carbon dioxide levels. It stated that:

[o]ne fact about CO₂ that is known with certainty is that the concentration in the atmosphere is increasing . . . [f]or the remainder of this century the clearing of land will continue and the use of fossil fuel will increase. As a result, by the year 2000 the CO₂ concentration will exceed preindustrial levels by about 25 percent . . . [t]he most likely trend appears to be warming, with effects considerably greater in the polar regions than at mid-latitudes.⁹⁵
73. The paper concluded with the following frightening warning that there would be no way back for humanity: “[h]umanity is in the process of conducting a great global experiment. If unpleasant effects are encountered they cannot be quickly reversed.”⁹⁶

⁹² “Second Status Report of the IIASA Project on Energy Systems 1975”, *International Institute for Applied Systems Analysis*, 1975, page 144, Annex 359.

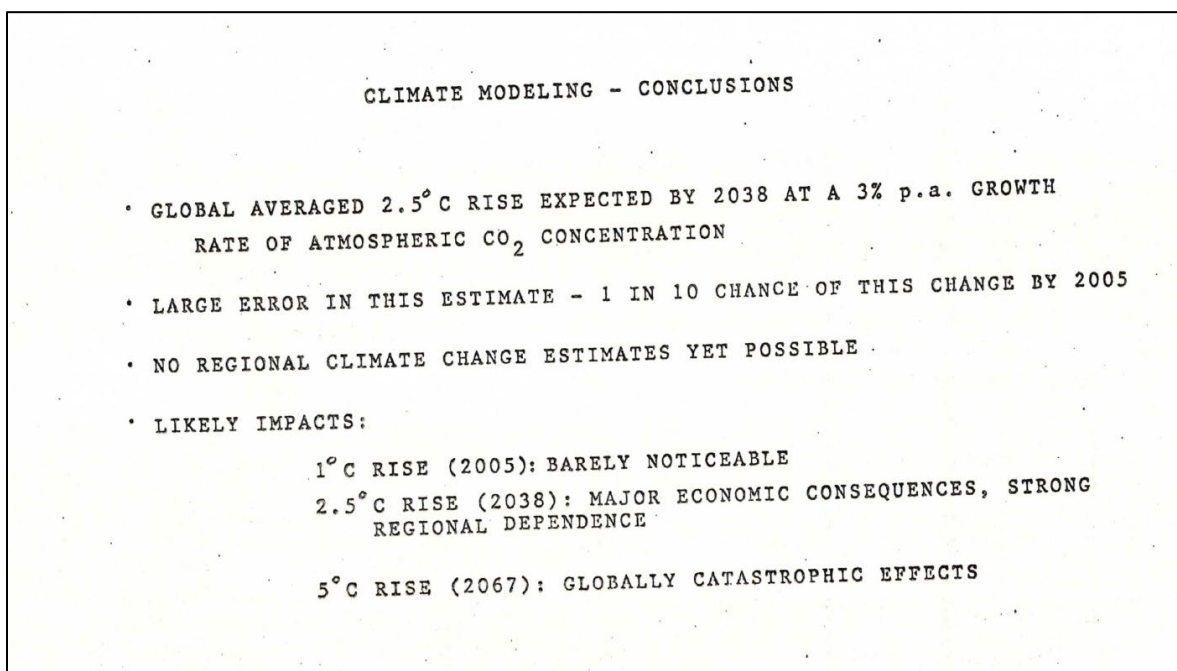
⁹³ V. Ramanathan, “Greenhouse Effect Due to Chlorofluorocarbons: Climatic Implications”, *Science*, 1975, page 50, Annex 360.

⁹⁴ C. Keeling, et al., “Atmospheric carbon dioxide variations at Mauna Loa Observatory, Hawaii”, *Tellus*, 1976, page 550, Annex 361.

⁹⁵ P. H. Abelson, “Energy and Climate”, *Science*, 1977, page 941, Annex 362.

⁹⁶ P. H. Abelson, “Energy and Climate”, *Science*, 1977, page 941, Annex 362.

74. By 1980, the American Petroleum Institute had also established a CO₂ and Climate Task Force. In 1980, a presentation was given to this task force on “The CO₂ Problem, Addressing Research Agenda Development.”⁹⁷ This presentation was both startling in its terms and its predictive content. The following slide presented to the institute’s Task Force speaks for itself:⁹⁸



75. Today, of course, we are living in that predicted world of “major economic consequences” and “globally catastrophic effects.”⁹⁹
76. In 1980, scientists were already sounding out the need for international cooperation to *inter alia* control fossil combustion. A paper of that year stated that:

there is concern about climate effects from the build-up of carbon dioxide (CO₂) in the atmosphere from combustion of all carbon fuels including oil, gas, coal, and wood. Currently there is uncertainty about CO₂ inputs from various sources, the absorption of CO₂ by various sinks, and the consequences of the effects of rising CO₂ content in the atmosphere. If the effects prove as serious as some researchers predict, the resulting situation would call for

⁹⁷ Minutes of the Meeting of American Petroleum Institute CO₂ and Climate Task Force (AQ-9), 29 February 1980 (“**Minutes of the Meeting of American Petroleum Institute CO₂ and Climate Task Force**”), page 1, Annex 365.

⁹⁸ Minutes of the Meeting of American Petroleum Institute CO₂ and Climate Task Force, PDF page 13, Annex 365.

⁹⁹ Minutes of the Meeting of American Petroleum Institute CO₂ and Climate Task Force, PDF page 13, Annex 365.

extraordinary kinds of international cooperation to control world fuel combustion or, alternatively, the amount of deforestation.¹⁰⁰

77. In 1980, yet another paper in *Science* emphasised the great importance of environmental issues created by the increase of carbon dioxide in the atmosphere. It noted: “[t]he possible climatic effects of large increases in atmospheric CO₂ due to burning of fossil fuels may constitute one of the important environmental problems of the coming decades.”¹⁰¹
78. Similar warnings accrued over the rest of that decade:
- a. in 1981, a paper in the *Journal of Geophysical Research* warned that the climate warming effect of the increase in atmospheric carbon dioxide was even more significant than previously thought. It found that “results indicate that the direct contribution for CO₂ increases to surface heating may be larger than previously calculated, the question of indirect influences of the CO₂ is still far from resolved”,¹⁰²
 - b. in 1981, a report on a symposium that year mentioned that:

man’s activities may produce changes in climate that exceed any which have occurred naturally in the past 10 000 years. The cause is atmospheric carbon dioxide. By burning fossil fuels and, most probably, by deforestation and changing land-use, man has upset the balance in the global carbon dioxide budget and produced, over the past century, a considerable increase in atmospheric CO₂ concentration. Future changes will almost certainly occur at an accelerating rate. These changes are important because CO₂ is a radiatively active gas. It participates strongly in the radiation balance of the atmosphere, effectively trapping out-going long-wave radiation in the lower layers of the atmosphere and producing a warming by the ‘greenhouse’ effect.¹⁰³

¹⁰⁰ “COAL—Bridge to the Future”, *World Coal Study (WOCOL)*, 1980, page 135, Annex 363.

¹⁰¹ R. Madden & V. Ramanathan, “Detecting Climatic Change due to Increasing Carbon Dioxide”, *Science*, 1980, page 763, Annex 364.

¹⁰² J. Hummel & R. Reck, “Carbon Dioxide and Climate: The Effects of Water Transport in Radiative-Convective Models”, *Journal of Geophysical Research*, 1981, page 12,037, Annex 366.

¹⁰³ T. Wigley, *Energy production and climatic change: an assessment*, in URANIUM AND NUCLEAR ENERGY: 1981, The Uranium Institute (Butterworth Scientific Limited, 1981), page 293, Annex 367.

and also that:

[t]hese are necessary consequences, because increased CO₂ will perturb the whole climate system, and will do so in quite complex ways. Furthermore, CO₂-induced changes will occur not only in temperature, but also in other meteorological and oceanographic parameters, pressure patterns, prevailing winds, rainfall, ocean temperatures and currents, sea-ice distribution, etc. All these are interlinked facets of the global climate system.

How sure can we be that doubling of CO₂ levels will warm the globe by *on average* 2-3°C? The answer is that we can have considerable confidence on this estimate.¹⁰⁴

(Emphasis in the original.)

- c. in 1983, the US Environmental Protection Agency published the “Projecting Future Sea Level Rise. Methodology, Estimates to the Year 2100, and Research Notes.” This study concluded that the increase in greenhouse gases in the atmosphere would cause a substantial rise in sea levels. It stated:

[c]oncentrations of atmospheric CO₂ and other greenhouse gases will continue to increase in coming decades. Two National Academy of Sciences panels have concluded that higher levels of these gases will almost certainly produce a large global warming. That warming, by thermally expanding the oceans and by causing the transfer of ice and snow resting on land to the oceans, should raise sea level substantially faster than the rise that has taken place during the past century.¹⁰⁵

- d. in 1984, a paper in a treatise described that “for CO₂ doubling, all models produce a rise in global mean temperature of about 2.5 K.”¹⁰⁶ It also concluded that “[r]esults of [the model] show that limiting equatorial response

¹⁰⁴ T. Wigley, *Energy production and climatic change: an assessment*, in URANIUM AND NUCLEAR ENERGY: 1981, The Uranium Institute (Butterworth Scientific Limited, 1981), page 304, Annex 367.

¹⁰⁵ “Projecting Future Sea Level Rise. Methodology, Estimates to the Year 2100, and Research Notes”, *U.S. Environmental Protection Agency*, 24 October 1983, page vi, Annex 368.

¹⁰⁶ B. Flannery et al., *Energy Balance Models Incorporating Evaporative Buffering of Equatorial Thermal Response*, in CLIMATE PROCESSES AND CLIMATE SENSITIVITY, eds. J. Hansen & T. Takahashi (American Geophysical Union, 1984), page 113, Annex 369.

by evaporative buffering ... does not limit global response: rather, such buffering strongly amplifies polar response”;¹⁰⁷

- e. in 1986, a scientific paper delivered the following warning: “[e]vidence is mounting, however, that by burning fossil fuels, leveling tropical forests, and engaging in a number of other activities, humans are releasing gases to the atmosphere that could trap enough heat to raise the temperature of the earth’s surface by a few degrees Celsius.”¹⁰⁸ It warned that “[a]lthough an average warming of a few degrees does not sound like much, it could create dramatic changes in climatic extremes.”¹⁰⁹ It also pointed out some of the consequences of climate change “[c]hanges in the timing and amount of precipitation will almost certainly occur if the climate warms, affecting agriculture and hydroelectric resources, among other things. Soil moisture, which is critical during planting and early growth periods, will change”;¹¹⁰ and
- f. in 1989, a scientific paper also set out the consequence of climate change for certain vulnerable States, it provided that “some countries are acutely vulnerable to natural climatic variability that may cripple their own food production or substantially reduce the supply and raise the price of foodstuffs on the world market. Under conditions of changing climate and growing population, this situation may grow more precarious.”¹¹¹

79. This list could go on and on. There can be no doubt: the harmful effect of greenhouse gas emissions through *inter alia* the burning of fossil fuels has been established through scientific knowledge for many decades. The above list of historical scientific findings is unequivocal evidence of this simple fact.

¹⁰⁷ B. Flannery et al., *Energy Balance Models Incorporating Evaporative Buffering of Equatorial Thermal Response*, in CLIMATE PROCESSES AND CLIMATE SENSITIVITY, J. Hansen & Taro Takahashi eds (American Geophysical Union, 1984), page 116, Annex 369.

¹⁰⁸ M. Shepard, “The Greenhouse Effect: Earth’s Climate in transition”, *EPRI Journal*, 1986 (“**Shepard 1986 Paper**”), page 5, Annex 370.

¹⁰⁹ Shepard 1986 Paper, page 13, Annex 370.

¹¹⁰ Shepard 1986 Paper, page 13, Annex 370.

¹¹¹ P. H. Gleick, “The Implications of Global Climatic Changes for International Security”, *Climatic Change*, 1989, page 311, Annex 371.

B. Current scientific observations confirm past prediction: anthropogenic gas emissions are harming all States and areas outside national jurisdiction

80. The scientific consensus is as clear as it is undeniable. As definitively stated by the Intergovernmental Panel on Climate Change (“**IPCC**”), the UN body for assessing the science related to climate change,¹¹² “[h]uman activities, principally through emissions of greenhouse gases, have unequivocally caused global warming.”¹¹³ All UN Member States unanimously agree that “anthropogenic emissions of greenhouses gases are unequivocally the dominant cause of global warming.”¹¹⁴ States and international organisations also accept the science of climate change in their submissions to ITLOS.¹¹⁵
81. This science is simple but highly developed. Carbon dioxide, methane and nitrous oxide exist in the Earth’s atmosphere in different forms.¹¹⁶ These gases are also referred to as “greenhouse gases” because, when they are in the atmosphere, they absorb and re-radiate solar energy within the Earth’s atmosphere. This traps the heat from the Sun in the Earth’s atmosphere, creating an effect similar to the artificial trapping of solar radiation by greenhouses.¹¹⁷

¹¹² See “About”, *Intergovernmental Panel on Climate Change*, Annex 399. In 1988, the UN Environment Programme and the World Meteorological Organization, a UN specialised agency, created the IPCC and the UN General Assembly endorsed it (see UN General Assembly Resolution 43/53 (1988), A/RES/43/53, 6 December 1988 (“**UN General Assembly Resolution 43/53**”), paragraph 5, Annex 107).

¹¹³ “Climate Change 2023: Synthesis Report. Summary for Policymakers”, IPCC AR6 SYR, *Intergovernmental Panel on Climate Change*, 2023 (“**IPCC 2023 Summary for Policymakers**”), page 4, Annex 397.

¹¹⁴ UN General Assembly Resolution 77/276, page 2, Annex 128.

¹¹⁵ In the *Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law (Request for Advisory Opinion submitted to the Tribunal)*, ITLOS Case No. 31 (“**ITLOS Climate Change Advisory Opinion**”), see United Kingdom, Written Statement of 16 June 2023, paragraph 6, Annex 203; European Union, Written Statement of 15 June 2023, paragraph 44, Annex 196; African Union, Written Statement of 16 June 2023, paragraph 12,21, Annex 200; Republic of Chile, Written Statement of 16 June 2023, paragraphs 29, 33, 39, Annex 205; Commission of Small Island States on Climate Change and International Law (COSIS), Written Statement of 16 June 2023, Vol I, paragraph 125, Annex 206; Democratic Republic of the Congo (DRC), Written Statement of 13 June 2023, paragraph 41, Annex 208; Arab Republic of Egypt, Written Statement of 16 June 2023, paragraph 12, Annex 209.

¹¹⁶ See “Annex VII – Glossary. Climate Change 2021: The Physical Science Basis”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2021 (“**IPCC 2021 Glossary**”), page 2233, “Greenhouse gases”, Annex 390; “The greenhouse effect”, *British Geological Survey*, Annex 400.

¹¹⁷ See IPCC 2021 Glossary, page 2232, “Greenhouse effect”, Annex 390; “The greenhouse effect”, *British Geological Survey*, Annex 400; “Historical Overview of Climate Change- Climate Change

82. Certain human activities release elements into the atmosphere, like carbon, that are stored in organic and inorganic sources on or buried within the earth. When these activities release these elements into the atmosphere, the elements combine with prevalent atmospheric oxygen to increase the amount of greenhouse gases beyond that which would naturally occur. Examples of such human activities leading to the release of these elements, and corresponding release of greenhouse gases, include: “burning of fossil fuels, deforestation, land use [(e.g., grazing, timber extractions, etc.)] and land-use changes (LILIC), livestock production, fertilisation, waste management, and industrial processes.”¹¹⁸
83. Human activities that increase the atmospheric concentration of greenhouse gases have greatly increased since the Industrial era that began in the United Kingdom in the 18th century.¹¹⁹ Industrialisation led to a significant increase in combusting material containing carbon, such a coal, petroleum and natural gas, as doing so became increasingly common to power heavy transport and industry.¹²⁰ When such fuels are burned, their carbon content combines with oxygen to form carbon dioxide. That carbon dioxide becomes part of the atmosphere and further adds to the natural greenhouse gases that are already present in the atmosphere.¹²¹
84. Vegetation (e.g., forests) and oceans are natural “sinks” in the sense that they can absorb heat and carbon dioxide, which mitigates the impacts of increasing greenhouse gas concentration in the atmosphere.¹²²

2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2007, page 115, Annex 374.

¹¹⁸ IPCC 2021 Glossary, pages 2218 and 2236, “Anthropogenic emissions” and “Land use”, Annex 390.

¹¹⁹ See George Agbugba et al., *The decoupling of economic growth from carbon emissions: UK evidence*, UK Office for National Statistics, 2019, page 6, Annex 382.

¹²⁰ See “Global Carbon and other Biogeochemical Cycles and Feedbacks. Climate Change 2021 – The Physical Science Basis”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2021 (“**IPCC 2021 Global Carbon, Report on Climate Change, The Physical Science Basis**”), page 687, Annex 385; in the ITLOS Climate Change Advisory Opinion, see African Union, Written Statement of 16 June 2023, paragraph 22, Annex 200; Australia, Written Statement of 16 June 2023, paragraph 26, Annex 207; Commission of Small Island States on Climate Change and International Law (COSIS), Written Statement of 16 June 2023, Vol I, paragraph 67, Annex 206; Democratic Republic of the Congo (DRC), Written Statement of 13 June 2023, paragraph 48, Annex 208.

¹²¹ See IPCC 2021 Glossary, page 2230, “Fossil fuel emissions”, Annex 390.

¹²² See “How much carbon dioxide does the Earth naturally absorb?”, *Ask MIT Climate*, Annex 402. See also IPCC 2021 Summary for Policymakers, page 4, paragraph A.1.1 and footnote 7, Annex 397;

85. However, there is a limit to the amount of carbon dioxide and other greenhouse gases that can be absorbed by these sinks.¹²³ The effectiveness of these sinks is also substantially decreased as heightened concentrations of greenhouse gases, and the resulting temperature increases, create environmental damage.¹²⁴
86. As a result, due to anthropogenic gas emissions, there is a greater concentration of greenhouse gases in the atmosphere than at any other point in the last two million years.¹²⁵ This increased concentration of anthropogenically created gas is not offset by natural “sinks,” causing the atmosphere to trap more heat and, therefore, rising global temperatures.¹²⁶
87. Rising global temperatures cause a series of significant consequences, detailed in particularity below. These consequences have adverse consequences on the environmental, climatic systems, plants, animals and human beings. At some point, a “tipping point” is reached where the consequences of climate change become irreversible.¹²⁷ Examples of “tipping point” consequences include the melting of polar ice sheets and the drying of the Amazon rainforest.¹²⁸ These risks of irreversible damage escalate with every increment of global warming: the risks are higher than now when the global average temperature rises 1.5°C above pre-industrial levels and

“Frequently Asked Questions. Climate Change 2021: The Physical Science Basis”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2021, page 28-29, Annex 389; IPCC 2023 Summary for Policymakers, page 13, paragraph B.1.3, Annex 397.

¹²³ See “How much carbon dioxide does the Earth naturally absorb?”, *Ask MIT Climate*, Annex 402.

¹²⁴ See “Summary for Policymakers. Climate Change 2021 – The Physical Science Basis”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2021, pages 19-21, paragraphs B.4 to B.5.4, Annex 384; IPCC 2023 Summary for Policymakers, page 12, paragraph B.1.3, Annex 397.

¹²⁵ Atmospheric carbon dioxide is now 50% higher than pre-industrial levels. The IPCC has found with high confidence that historical cumulative net carbon dioxide emissions from 1850 to 2019 were 2400±240 gigatons, of which 58% occurred between 1850 and 1989, and about 42% occurred between 1990 and 2019. In 2019, carbon dioxide concentrations in the atmosphere were higher than at any time in at least two million years. During the last measured decade, global average annual emissions of carbon dioxide reached the highest levels in human history, to at least 10 billion metric tons per year. See “Climate Change 2022: Mitigation of Climate Change. Summary for Policymakers”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2022, page 6, Annex 391; IPCC 2021 Global Carbon, Report on Climate Change, The Physical Science Basis, page 676, Annex 385.

¹²⁶ See IPCC 2023 Summary for Policymakers, page 12, paragraph B.1.1, Annex 397.

¹²⁷ See “Climate Change 2023. Synthesis Report of the IPCC Sixth Assessment Report (AR6). Longer Report”, IPCC AR6 SYR, *Intergovernmental Panel on Climate Change*, 2023, page 42, Annex 396; “United in Science”, *World Meteorological Organization*, 2022, Annex 395.

¹²⁸ See “United in Science”, *World Meteorological Organization*, 2022, Annex 395.

become even higher when temperatures reach 2°C above global averages.¹²⁹ Indeed, this has been accepted by numerous States and international organisations in their submissions to ITLOS.¹³⁰ Many States and international organisations agree that the tipping point is dangerously imminent now and that climate change is the biggest challenge of our time.¹³¹

88. The IPCC also estimates that there is very little capacity left in the atmosphere for the presence of anthropogenic greenhouse gases to increase without the tipping point being reached.¹³² At current rates, the world will reach human-induced global warming of 1.5 °C around 2040.¹³³ That is why an urgent reduction in anthropogenic gas emissions is required to stop the atmosphere from emissions.
89. To expand on the above with particularity, anthropogenically caused increased greenhouse gas emissions will cause significant consequences to the environment, including: (a) rising temperatures of land and ocean and affect air quality (*see* sub-section (i)); (b) rising sea levels (*see* sub-section (ii)); (c) extreme weather events (*see*

¹²⁹ See IPCC 2023 Summary for Policymakers, page 15, paragraph B.2.2, Annex 397.

¹³⁰ In the ITLOS Climate Change Advisory Opinion, *see* Republic of Mauritius, Written Statement of 16 June 2023, paragraphs 21, 53, Annex 198; Republic of Mauritius, Oral Statement of 15 September 2023 (am), ITLOS/PV.23/C31/9, pages 18-19, Annex 225; Republic of Mozambique, Written Statement of 16 June 2023, paragraph 3.65, Annex 199; African Union, Written Statement of 16 June 2023, paragraph 23, Annex 200; People’s Republic of Bangladesh, Written Statement of 16 June 2023, paragraph 43, Annex 201.

¹³¹ In the ITLOS Climate Change Advisory Opinion, *see* Republic of Singapore, Written Statement of 16 June 2023, paragraph 1, Annex 202; Pacific Community, Oral Statement of 20 September 2023 (pm), ITLOS/PV.23/C31/15, pages 9-10, Annex 228; United Kingdom, Written Statement of 16 June 2023, paragraph 4, Annex 203; Canada, Written Statement of 16 June 2023, paragraph 3, Annex 204; African Union, Written Statement of 16 June 2023, paragraph 2, Annex 200; People’s Republic of Bangladesh, Written Statement of 16 June 2023, paragraph 3, Annex 201; Republic of Chile, Written Statement of 16 June 2023, paragraph 70, Annex 205; People’s Republic of China, Written Statement of 15 June 2023, paragraph 4, Annex 194; Commission of Small Island States on Climate Change and International Law (COSIS), Written Statement of 16 June 2023, Vol I, paragraph 8, Annex 206; Argentine Republic, Oral statement of 13 September 2023 (pm), ITLOS/PV.23/C31/6, page 1, Annex 219.

¹³² See IPCC 2021 Global Carbon, Report on Climate Change, The Physical Science Basis, pages 739 to 741 and 777 (“to limit global warming to 1.5°C above pre-industrial levels with either a one-in-two (50%) or two-in-three (67%) chance the remaining carbon budgets amount to 500 and 400 billion tonnes of CO₂, respectively, from 1 January 2020 onward . . . Currently, human activities are emitting around 40 billion tonnes of CO₂ into the atmosphere in a single year”), Annex 385.

¹³³ See “Framing and Context. Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2018, page 81, Annex 380.

sub-section (iii)); (d) harm to wildlife and ecosystems (*see* sub-section (iv)); (e) acidification and deoxygenation of oceans (*see* sub-section (v)); and (f) loss and damage to States and their peoples (*see* sub-section (vi)).¹³⁴

(i) Anthropogenic gas emissions cause rising temperatures of land and ocean and affect air quality

90. Climate change caused by anthropogenic gas emissions will lead to stronger and more frequent land and marine heatwaves.¹³⁵ In addition to killing vulnerable humans, heatwaves cause increased mortality of a wide variety of animal and marine species and have consequent effects on ecosystems and industries such as agriculture and fisheries.¹³⁶
91. Indeed, this impact of anthropogenic gas emissions has been accepted by numerous States and international organisations in their submissions to ITLOS.¹³⁷
92. Climate change is expected to have negative impacts on human health, including increased likelihood of undernutrition from diminished food production; injury,

¹³⁴ See IPCC 2023 Summary for Policymakers, page 16, Annex 397.

¹³⁵ See “Weather and Climate Extreme Events in a Changing Climate. Climate Change 2021 – The Physical Science Basis”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2021, page 1519, Annex 388.

¹³⁶ See “Oceans and Coastal Ecosystems and Their Services. Climate Change 2022: Impacts, Adaptation and Vulnerability”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2022, page 460, Annex 392.

¹³⁷ In the ITLOS Climate Change Advisory Opinion, *see* European Union, Written Statement of 15 June 2023, paragraph 44, Annex 196; European Union, Oral Statement of 20 September 2023 (am), ITLOS/PV.23/C31/14, page 21, Annex 229; Canada, Written Statement of 16 June 2023, paragraphs 4,14, Annex 204; Pacific Community, Written Statement of 16 June 2023, paragraph 9, Annex 210; United Kingdom, Written Statement of 16 June 2023, paragraph 41(a), Annex 203; African Union, Written Statement of 16 June 2023, paragraphs 2, 25, 27, 43, 95, 103-108, Annex 200; Australia, Written Statement of 16 June 2023, paragraphs 25, Annex 207; People’s Republic of Bangladesh, Written Statement of 16 June 2023, paragraph 32, Annex 201; People’s Republic of Bangladesh, Oral statement of 13 September 2023 (pm), ITLOS/PV.23/C31/6, page 21, Annex 220; Belize, Written Statement of 16 June 2023, paragraph 19(b), Annex 211; Belize, Oral statement of 18 September 2023(am), ITLOS/PV.23/C31/11, page 27, Annex 227; Republic of Chile, Written Statement of 16 June 2023, paragraphs 33-34, 55-56, Annex 205; Republic of Chile, Oral Statement of 14 September 2023 (am), ITLOS/PV.23/C31/7, page 1, Annex 223; Commission of Small Island States on Climate Change and International Law (COSIS), Written Statement of 16 June 2023, Vol I, paragraphs 63-65, 87-89, Annex 206; Republic of Djibouti, Written Statement of 16 June 2023, paragraph 6, Annex 212; Democratic Republic of the Congo (DRC), Written Statement of 13 June 2023, paragraph 65, Annex 208; Arab Republic of Egypt, Written Statement of 16 June 2023, paragraphs 13-14, Annex 209; France, Written Statement of 16 June 2023, paragraph 82, Annex 213; Japan, Written Statement of 15 June 2023, page 2, Annex 197; Federal Republic of Germany, Written Statement of 14 June 2023, paragraph 32, Annex 193; Republic of Indonesia, Oral Statement of 15 September 2023 (am), ITLOS/PV.23/C31/9, pages 1-2, Annex 226.

disease and death resulting from more intense heatwaves and fires; and higher risk of food, water and vector-borne diseases.¹³⁸ The World Bank estimates that a 2°C rise in the average global temperature could potentially put between 100 million and 400 million more people at risk of hunger and could result in over three million additional deaths from malnutrition each year.¹³⁹

93. Anthropogenic gas emissions also directly degrade air quality, which has a resultant negative effect on human and animal health.¹⁴⁰ The effects of this may be most acutely felt by developing States that have more limited medical facilities.
94. Such impacts will inevitably interact with human socio-economic risk drivers, such as competition for land between urban expansion, food production and pandemics.¹⁴¹ Invariably, human rights abuses may materialise as societies struggle with these vast impacts and consequential migration and social friction.¹⁴²

(ii) Anthropogenic gas emissions cause rising sea levels

95. The IPCC states that anthropogenic gas emissions are the main driver of the increase in sea levels seen since at least 1971.¹⁴³ It also states that global mean sea levels increased by approximately 0.20 metres between 1901 and 2018 and that sea levels are projected to continue rising with what the IPCC describe in the IPCC 2023 Summary for Policymakers as “risks for coastal ecosystems, people and infrastructure.”¹⁴⁴

¹³⁸ See “Water. Climate Change 2022: Impacts, Adaptation and Vulnerability”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2022, pages 555–557, 585, Annex 393.

¹³⁹ See “World Development Report 2010: Development and Climate Change”, Report No. 53077, *The World Bank*, 7 June 2011, pages 4 – 5, Annex 443.

¹⁴⁰ See “Annex I: Glossary. Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2018, page 542, Annex 379.

¹⁴¹ See IPCC 2023 Summary for Policymakers, page 15, paragraph B.2.3, Annex 397.

¹⁴² See “Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change”, *Intergovernmental Panel on Climate Change*, 2014, page 20, Annex 378.

¹⁴³ See IPCC 2023 Summary for Policymakers, page 5, paragraph A.2.1, Annex 397.

¹⁴⁴ IPCC 2023 Summary for Policymakers, page 15, paragraph B.2.2, Annex 397.

96. Indeed, this impact of anthropogenic gas emissions described by the IPCC has been accepted by numerous States and international organisations in their submissions to ITLOS.¹⁴⁵
97. As a small island State, Barbados is particularly susceptible to coastal inundation, sea level rise and coastal erosion.¹⁴⁶
- (iii) Anthropogenic gas emissions cause extreme weather events
98. Recent years have seen a concerning upward trend in the amount of extreme weather events (such as floods, droughts, cyclones, heat waves and wildfires) and deaths from such weather events.¹⁴⁷ Such events have huge impacts on economic activity in exposed sectors, such as agriculture, forestry, fishery, energy and tourism with resultant impact on individual livelihoods.¹⁴⁸ Such extreme weather events have been accepted as a consequence of the global heating of anthropogenic gas emissions.

¹⁴⁵ In the ITLOS Climate Change Advisory Opinion, *see* European Union, Written Statement of 15 June 2023, paragraphs 44,46, Annex 196; European Union, Oral Statement of 20 September 2023 (am), ITLOS/PV.23/C31/14, page 21, Annex 229; Canada, Written Statement of 16 June 2023, paragraph 14, Annex 204; Republic of Sierra Leone, Written Statement of 16 June 2023, paragraph 24, Annex 214; Kingdom of the Netherlands, Written Statement of 16 June 2023, paragraph 4.7, Annex 216; United Kingdom, Written Statement of 16 June 2023, paragraph 41(b), Annex 203; African Union, Written Statement of 16 June 2023, paragraphs 2, 25, 112-116, Annex 200; African Union, Oral Statement of 21 September 2023 (pm), ITLOS/PV.23/C31/17, page 2, Annex 231; People's Republic of Bangladesh, Written Statement of 16 June 2023, paragraphs 4, 9, 23, Annex 201; People's Republic of Bangladesh, Oral Statement of 13 September 2023 (pm), ITLOS/PV.23/C31/6, page 21, Annex 220; Belize, Written Statement of 16 June 2023, paragraph 19(c), Annex 211; Belize, Oral Statement of 18 September 2023 (am), ITLOS/PV.23/C31/11, page 27, Annex 227; Republic of Chile, Written Statement of 16 June 2023, paragraphs 33, 34, 55, 56, Annex 205; Commission of Small Island States on Climate Change and International Law (COSIS), Written Statement of 16 June 2023, Vol I, paragraphs 93-95, Annex 206; Republic of Djibouti, Written Statement of 16 June 2023, paragraph 6, Annex 212; Democratic Republic of the Congo (DRC), Written Statement of 13 June 2023, paragraphs 65, 67, Annex 208; Arab Republic of Egypt, Written Statement of 16 June 2023, paragraphs 13, 15, Annex 209; France, Written Statement of 16 June 2023, paragraph 82, Annex 213; Japan, Written Statement of 15 June 2023, page 2, Annex 197; Federal Republic of Germany, Written Statement of 14 June 2023, paragraph 32, Annex 193; Republic of Indonesia, Oral Statement of 15 September 2023 (am), ITLOS/PV.23/C31/9, pages 1-2, Annex 226.

¹⁴⁶ *See* "Climate Change Knowledge Portal for Development Practitioners and Policy Makers: Barbados", *The World bank*, Annex 398.

¹⁴⁷ *See* A. Bárcena et al., *The climate emergency in Latin America and the Caribbean: the path ahead – resignation or action?* (ECLAC Books, No. 160 (LC/PUB.2019/23-P), Economic Commission for Latin America and the Caribbean, 2020), ("**Bárcena, Climate Emergency in Latin America**"), pages 142-143, Annex 383.

¹⁴⁸ *See* IPCC 2023 Summary for Policymakers, page 6, paragraph A.2.6, Annex 397.

Indeed, this impact of anthropogenic gas emissions has been accepted by numerous States and international organisations in their submissions to ITLOS.¹⁴⁹

99. For example, Barbados is highly vulnerable to hurricanes and other extreme weather events.¹⁵⁰ Cyclones may be becoming more destructive and frequent due to climate change.¹⁵¹ Small island developing States often take years to recover from flooding by extreme weather events due in part to the high cost of debt financing for such projects.¹⁵² If the trend of increasingly strong hurricanes continues, these extreme weather events may pose an existential risk to Barbados and other Caribbean and low lying States.¹⁵³
100. These adverse impacts are concentrated among the economically and socially marginalised persons such as the elderly and children.¹⁵⁴ Extreme weather events, such as heatwaves and hurricanes, cause disruptions in the necessary healthcare and services for older persons sometimes resulting in the elderly being stranded without access to medical care.¹⁵⁵ Extreme weather events also bring about enduring

¹⁴⁹ In the ITLOS Climate Change Advisory Opinion, *see* African Union, Written Statement of 16 June 2023, paragraph 24, Annex 200; People's Republic of Bangladesh, Written Statement of 16 June 2023, paragraphs 4, 9, 44, Annex 201; People's Republic of Bangladesh, Oral statement of 13 September 2023 (pm), ITLOS/PV.23/C31/6, page 21, Annex 220; Belize, Written Statement of 16 June 2023, paragraph 20(a), Annex 211; Republic of Djibouti, Written Statement of 16 June 2023, paragraph 6, Annex 212; Democratic Republic of the Congo (DRC), Written Statement of 13 June 2023, paragraph 68, Annex 208; France, Oral Statement of 25 September 2023 (am), ITLOS/PV.23/C31/18, page 1, Annex 232.

¹⁵⁰ *See* "Climate Change Knowledge Portal for Development Practitioners and Policy Makers: Barbados", *The World bank*, Annex 398.

¹⁵¹ *See* "Weather and Climate Extreme Events in a Changing Climate. Climate Change 2021: The Physical Science Basis", Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2021, page 1517, Annex 388.

¹⁵² *See* Building Resilience in Small Island Developing States, A compendium of research prepared by the UNCTAD Division for Africa, Least Developed Countries and Special Programmes, UNCTAD/ALDC/INF/2022/2, 31 January 2022, page 16, Annex 428.

¹⁵³ *See* Bárcena, Climate Emergency in Latin America, page 122, Annex 383.

¹⁵⁴ *See* IPCC 2023 Summary for Policymakers, page 6, paragraph A.2.7, Annex 397.

¹⁵⁵ *See* Report of the Office of the United Nations High Commissioner for Human Rights, Analytical study on the promotion and protection of the rights of older persons in the context of climate change, A/HRC/47/46, 30 April 2021, page 5, paragraph 11, Annex 427.

consequences. For instance, children's access to education may be interrupted due to damage to their schools.¹⁵⁶

101. Extreme weather events also have collateral effects on, for example, public finances and infrastructure in the form of property losses, lifestyle changes and disruption of transport and international trade (which reinforces poverty traps).¹⁵⁷

(iv) Anthropogenic gas emissions harm wildlife and ecosystems

102. Wildlife and ecosystems often contain unique features and resources that generally extend beyond national borders. They include deserts, semi-arid lands, mountains, wetlands, small islands and certain coastal areas.¹⁵⁸ Climate change caused by anthropogenic gas emissions (and resulting extreme events such as floods, droughts, cyclones, heat waves and fire) affects the functioning of ecosystems, biodiversity and ecosystem services.¹⁵⁹
103. Irreversible damage to wildlife and ecosystems has already occurred due to anthropogenic gas emissions. Certain local species have gone extinct due to heat extremes and mass mortality events – and others are significantly endangered.¹⁶⁰ As the warming levels further rise, the risk of species extinction and loss of biodiversity in key ecosystems (such as forests, coral reefs and the Arctic regions) also rises.¹⁶¹ Many communities depend on those ecosystems for food and employment, such as

¹⁵⁶ See Report of the Office of the United Nations High Commissioner for Human Rights, Analytical study on the relationship between climate change and the full and effective enjoyment of the rights of the child, A/HRC/35/13, 4 May 2017, page 4, paragraph 10, Annex 420.

¹⁵⁷ See Bárcena, Climate Emergency in Latin America, Annex 383, citing: (a) at page 158, “Natural Hazards, Unnatural Disasters: The Economics of Effective Prevention”, *The World Bank*, 2010, pages 10-22, Annex 442; and (b) at page 95, R. Caballeros-Otero & R. Zapata, *The impacts of natural disasters on developing economies: implications for the international development and disaster community* in DISASTER PREVENTION FOR SUSTAINABLE DEVELOPMENT: ECONOMIC AND POLICY ISSUES, ed. Mohan Munasinghe & Caroline Clarke (The World Bank, 1995), Annex 456.

¹⁵⁸ See IACtHR 2017 Advisory Opinion, paragraph 142, footnote 279, Annex 235.

¹⁵⁹ See “Terrestrial and Freshwater Ecosystems and Their Services. Climate Change 2022: Impacts, Adaptation and Vulnerability”, Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2022, page 202, Annex 394.

¹⁶⁰ See IPCC 2023 Summary for Policymakers, page 5, paragraph A.2.3 and page 18, paragraph B.3.2, Annex 397.

¹⁶¹ See IPCC 2023 Summary for Policymakers, page 19, paragraph B.3.2, Annex 397.

tourism and conservation.¹⁶² Loss of those resources will inevitably lead to conflict, mass migration and the accompanying human rights abuses.¹⁶³

104. The impact of anthropogenic gas emissions on wildlife and ecosystems has been accepted by numerous States and international organisations in their submissions to ITLOS.¹⁶⁴

(v) Anthropogenic gas emissions acidify and deoxygenate oceans

105. Due to the anthropogenic gas emissions already in the atmosphere, ocean acidification is imminent despite attempts to keep the global temperature rise within 1.5°C.¹⁶⁵ Ocean acidification is a result of increased concentration of carbon dioxide dissolved in ocean waters depleting oxygen levels in the ocean and thereby making the oceans more acidic.¹⁶⁶ This deeply impacts sea life as ocean acidity hinders sea organisms' ability to build shells, thereby posing a significant risk to the marine ecosystem.¹⁶⁷

¹⁶² See IPCC 2023 Summary for Policymakers, pages 5-6, paragraphs A.2.3-A.2.6, Annex 397.

¹⁶³ See IPCC 2023 Summary for Policymakers, page 19, paragraph B.3.2, Annex 397.

¹⁶⁴ In the ITLOS Climate Change Advisory Opinion, see European Union, Written Statement of 15 June 2023, paragraph 45, Annex 196; European Union, Oral Statement of 20 September 2023 (am), ITLOS/PV.23/C31/14, page 21, Annex 229; Canada, Written Statement of 16 June 2023, paragraphs 4-5, Annex 204; Republic of Mauritius, Written Statement of 16 June 2023, paragraph 19, Annex 198; Republic of Mozambique, Written Statement of 16 June 2023, paragraph 3.27, Annex 199; Pacific Community, Written Statement of 16 June 2023, paragraph 11, Annex 210; United Kingdom, Written Statement of 16 June 2023, paragraphs 41(a)-(c), Annex 203; African Union, Written Statement of 16 June 2023, paragraphs 24, 94, Annex 200; African Union, Oral Statement of 21 September 2023 (pm), ITLOS/PV.23/C31/17, pages 2, 17, Annex 231; People's Republic of Bangladesh, Written Statement of 16 June 2023, paragraphs 24, 26, Annex 201; People's Republic of Bangladesh, Oral statement of 13 September 2023 (pm), ITLOS/PV.23/C31/6, pages 21, 22, 23, Annex 220; Belize, Written Statement of 16 June 2023, paragraph 19(a), Annex 211; Belize, Oral Statement of 18 September 2023 (am), ITLOS/PV.23/C31/11, pages 27-28, Annex 227; Republic of Chile, Written Statement of 16 June 2023, paragraphs 37, 38, 91, Annex 205; Republic of Chile, Oral Statement of 14 September 2023 (am), ITLOS/PV.23/C31/7, pages 6, 7, Annex 223; Commission of Small Island States on Climate Change and International Law (COSIS), Written Statement of 16 June 2023, Vol I, paragraphs 90-92, 113-119, Annex 206; Democratic Republic of the Congo (DRC), Written Statement of 13 June 2023, paragraphs 66, 76-81, Annex 208; Arab Republic of Egypt, Written Statement of 16 June 2023, paragraphs 14, 76, Annex 209; France, Written Statement of 16 June 2023, paragraphs 86, 87, 93, Annex 213; Japan, Written Statement of 15 June 2023, page 2, Annex 197; Republic of Indonesia, Oral Statement of 15 September 2023 (am), ITLOS/PV.23/C31/9, pages 1-2, Annex 226.

¹⁶⁵ See IPCC 2023 Summary for Policymakers, pages 12 and 13, paragraph B.1.3, Annex 397.

¹⁶⁶ See "Summary for Policymakers. Climate Change 2021 – The Physical Science Basis", Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2021, page 5, paragraph A.1.6, Annex 384; IPCC 2021 Glossary, page 2241, "Ocean acidification", Annex 390.

¹⁶⁷ See "Oceans and Coastal Ecosystems and Their Services. Climate Change 2022: Impacts, Adaptation and Vulnerability", Cambridge University Press, 2022, *Intergovernmental Panel on Climate Change*, page 460, Annex 392.

106. Such damage to the oceans has a negative impact on humans. Persons reliant on the marine environment for their livelihood, such as those who work in the fishing industry. In this respect, harm to the oceanic environment directly affects their social and economic rights. Human enjoyment of the oceans is also protected under the right to a healthy environment, of which the oceans are a significant part.
107. This impact of anthropogenic gas emissions has been accepted by numerous States and international organisations in their submissions to ITLOS.¹⁶⁸
- (vi) Like many other States and their peoples, Barbados and its citizens are already experiencing loss and damage due to climate change
108. Some of the worst effects of anthropogenic gas emissions are felt by small island States and other developing States.¹⁶⁹ Although they are among the least responsible of all nations for climate change caused by these gas emissions, these States are likely to suffer strongly from its adverse effects. This makes them a special case requiring the help and attention of the international community.¹⁷⁰ The impact of anthropogenic

¹⁶⁸ In the ITLOS Climate Change Advisory Opinion, *see* Republic of Sierra Leone, Written Statement of 16 June 2023, paragraph 31, Annex 214; Federated States of Micronesia, Written Statement of 16 June 2023, paragraph 32, Annex 215; Socialist Republic of Vietnam, Oral Statement of 20 September 2023 (am), ITLOS/PV.23/C31/14, page 42, Annex 230; United Kingdom, Written Statement of 16 June 2023, paragraphs 4, 41(c), Annex 203; Republic of Rwanda, Written Statement of 17 June 2023, paragraph 129, Annex 218; European Union, Written Statement of 15 June 2023, paragraphs 44-45, Annex 196; European Union, Oral Statement of 20 September 2023 (am), ITLOS/PV.23/C31/14, page 21, Annex 229; Republic of Mozambique, Written Statement of 16 June 2023, paragraph 3.27, Annex 199; Canada, Written Statement of 16 June 2023, paragraph 14, Annex 204; Republic of Latvia, Written Statement of 16 June 2023, paragraph 17, Annex 217; Kingdom of the Netherlands, Written Statement of 16 June 2023, paragraph 2.5, Annex 216; African Union, Written Statement of 16 June 2023, paragraphs 2, 25, 95, 98-102, Annex 200; African Union, Oral Statement of 21 September 2023 (pm), ITLOS/PV.23/C31/17, page 2, Annex 231; People's Republic of Bangladesh, Written Statement of 16 June 2023, paragraph 24, Annex 201; People's Republic of Bangladesh, Oral Statement of 13 September 2023, ITLOS/PV.23/C31/6, pages 21-22, Annex 220; Belize, Written Statement of 16 June 2023, paragraph 19(a), Annex 211; Republic of Chile, Written Statement of 16 June 2023, paragraphs 33, 35, 55, 56, Annex 205; Republic of Chile, Oral Statement of 14 September 2023 (am), ITLOS/PV.23/C31/7, pages 1, 7, Annex 223; Commission of Small Island States on Climate Change and International Law (COSIS), Written Statement of 16 June 2023, paragraphs 98-103, 110-113, Annex 206; Democratic Republic of the Congo (DRC), Written Statement of 16 June 2023, paragraphs 65, 69, Annex 208; Arab Republic of Egypt, Written Statement of 16 June 2023, paragraphs 13-14, Annex 209; Japan, Written Statement of 15 June 2023, page 2, Annex 197; Federal Republic of Germany, Written Statement of 14 June 2023, paragraph 32, Annex 193; Republic of Indonesia, Oral Statement of 15 September 2023 (am), ITLOS/PV.23/C31/9, pages 1-2, Annex 226.

¹⁶⁹ *See* "On the Frontlines of Climate Change, Small Island States Can Lead in Resilience", *The World Bank*, 11 April 2022, Annex 444.

¹⁷⁰ *See* "Climate change, small island developing States", *Climate Change Secretariat, United Nations Framework Convention on Climate Change* (UNFCCC), 2005, page 5, Annex 410.

gas emissions on small island States has been accepted by numerous States and international organisations in their submissions to ITLOS.¹⁷¹

109. Climate change is “already wreaking havoc on Barbados.”¹⁷² As both a small island and a developing State, Barbados “face[s] the consequences of climate change with a very limited quantity of economic, social and natural resources.”¹⁷³ The Caribbean, with its low-lying land mass and fragile marine environments will face severe consequences.¹⁷⁴

110. As Prime Minister Mia Mottley stated on World Environment Day 2023:

as Barbadians, the truth is that each day serves as an environment day for us. With the rising sea levels impacting our island, from Six Men’s to Silver Sands, worsening quantities of Sargassum Seaweed blanketing our shores, and the days and nights getting warmer, we know and feel the effects of the Climate Crisis in our nation.

[O]n June 17 [2021], we were impacted by a freak storm and three months later, Hurricane Elsa became the first major hurricane to hit the country since 1955, impacting homes, destroying crops, damaging livestock in the hundreds of thousands and resulting in damage in excess of US \$35 million.¹⁷⁵

¹⁷¹ In the ITLOS Climate Change Advisory Opinion, *see* Republic of Singapore, Written Statement of 16 June 2023, paragraph 1, Annex 202; Republic of Mauritius, Written Statement of 16 June 2023, paragraphs 3, 17, Annex 198; United Kingdom, Written Statement of 16 June 2023, paragraph 5, Annex 203; Canada, Written Statement of 16 June 2023, paragraph 4, Annex 204; African Union, Written Statement of 16 June 2023, paragraphs 11, 52, Annex 200; Belize, Written Statement of 16 June 2023, paragraph 15, Annex 211; Commission of Small Island States on Climate Change and International Law (COSIS), Written Statement of 16 June 2023, Vol I, paragraphs 8, 122-124, Annex 206; Democratic Republic of the Congo (DRC), Written Statement of 16 June 2023, paragraph 54, Annex 208; Australia, Oral Statement of 13 September 2023 (am), ITLOS/PV.23/C31/5, page 2, Annex 221; Federal Republic of Germany, Oral Statement of 13 September 2023 (am), ITLOS/PV.23/C31/5, page 17, Annex 222; Argentine Republic, Oral Statement of 13 September 2023 (pm), ITLOS/PV.23/C31/6, page 1, Annex 219; Republic of Chile, Oral Statement of 14 September 2023 (am), ITLOS/PV.23/C31/7, page 6, Annex 223; European Union, Oral Statement of 20 September 2023 (am), ITLOS/PV.23/C31/14, page 21, Annex 229; France, Oral Statement of 25 September 2023 (am), ITLOS/PV.23/C31/18, page 1, Annex 232.

¹⁷² Barbados 2021 Update of the First Nationally Determined Contribution, 1 January 2021, page 6, Annex 182.

¹⁷³ Barbados 2021 Update of the First Nationally Determined Contribution, 1 January 2021, page 6, Annex 182.

¹⁷⁴ *See* “Climate Change 2023. Synthesis Report of the IPCC Sixth Assessment Report (AR6). Longer Report”, IPCC AR6 SYR, *Intergovernmental Panel on Climate Change*, 2023, pages 16-17, Annex 396.

¹⁷⁵ “Prime Minister Statement for World Environment Day 2023”, *Barbados Government Information Service*, 5 June 2023, Annex 192.

111. Barbados has made huge strides forwards in recent years as a vibrant and economically productive democracy. But the disproportionately high impact of climate change on the Caribbean puts that progress at risk.¹⁷⁶ For example, Bridgetown harbour is the primary economic coastal asset of the State.¹⁷⁷ The harbour handles the most tourists per year in Barbados but already stands significantly impacted by a rise in sea levels, storm surges and coastal erosion, with the prospect of worse ahead.¹⁷⁸
112. Barbados also faces the prospect of further climate change impacts. These include drought, rising sea levels, eroding shorelines and loss of reefs and fisheries.¹⁷⁹ The loss of reefs reduces protection against sea surges and tsunamis, increasing the island's vulnerability.¹⁸⁰

¹⁷⁶ See "INDC Project Actions and Impacts: Barbados", *United Nations Development Programme*, May 2019, Annex 424.

¹⁷⁷ See M. Mycoo, et al., "Human Adaptation to Coastal Hazards in Greater Bridgetown, Barbados", *Frontiers in Environmental Science*, 2021, Annex 478.

¹⁷⁸ See M. Mycoo, et al., "Human Adaptation to Coastal Hazards in Greater Bridgetown, Barbados", *Frontiers in Environmental Science*, 2021, pages 6, 12, Annex 478.

¹⁷⁹ See "Barbados Resists Climate Colonialism in an Effort to Survive the Costs of Global Warming" *ProPublica*, 27 June 2022, Annex 186.

¹⁸⁰ See "Oceans and Coastal Ecosystems and Their Services. Climate Change 2022: Impacts, Adaptation and Vulnerability", Cambridge University Press, *Intergovernmental Panel on Climate Change*, 2022, page 382, Annex 392.

V. THIS COURT SHOULD ANSWER THE REQUEST ON THE BASIS OF INTERNATIONAL LAW AS IT EXISTS

113. This Court should answer this Request on the basis of international law as it exists, in light of all relevant sources of law. It should do so notwithstanding the prevailing policy decisions of large and developed States on climate change.
114. This advisory opinion is not like the *Nuclear Weapons Advisory Opinion* before the ICJ. In that advisory opinion, the ICJ decided that the threat or use of nuclear weapons would “generally” be contrary to international law but could not conclude “definitively” whether such weapons would be unlawful.¹⁸¹
115. This Court should have regard to the full panoply of sources when considering the existence and scope of each obligation, rule, duty and principle of international law under the Request. International law is rich with sources from all legal traditions, languages and background. These written observations discuss international law obligations, duties, rules and principles that are accepted under multiple sources of international law listed in Article 38 of the Statute of the ICJ. This includes “international conventions,” “international custom, as evidence of a general practice accepted as law,” “general principles of law,” “judicial decisions” and the “teachings of the most highly qualified publicists.”¹⁸² Indeed, the sources listed in these written observations include historical conventions. Like the ICJ, this Court also refers to various materials as evidence of customary international law, including domestic court decisions, domestic legislation, resolutions of UN organs and other specialised agencies, decisions and commentaries of treaty bodies and reports of the International Law Commission (the “ILC”) all of which are cited here.¹⁸³
116. Some States may have different public policy considerations, especially as concerns the costs of redress and mitigation of climate change damage. However, unlike States before ICJ in the *Nuclear Weapons Advisory Opinion*, the international community agrees about the climate emergency and the need for international courts to clarify international law. It is no coincidence that UN Member States unanimously agreed to

¹⁸¹ *Nuclear Weapons Advisory Opinion*, paragraph 105(2)(E), Annex 264.

¹⁸² Statute of the International Court of Justice, 26 June 1945, XV UNCIO 355 (“**Statute of the ICJ**”), Article 38, Annex 3 Bis.

¹⁸³ See, e.g., IACtHR 2017 Advisory Opinion, paragraphs 58, 79 and 103, Annex 235.

request the ICJ for an advisory opinion on this topic too.¹⁸⁴ As explained throughout these written observations, the legal principles at issue in this advisory opinion have been well-established in international law for decades and centuries – indeed, they were uncontested before Roman times.

¹⁸⁴ See UN General Assembly Resolution 77/276 (2023), A/RES/77/276, 4 April 2023, Annex 128.

VI. HEADING F. REGARDING THE SHARED AND DIFFERENTIATED HUMAN RIGHTS OBLIGATIONS AND RESPONSIBILITIES OF STATES IN THE CONTEXT OF THE CLIMATE EMERGENCY

PART 1: TAKING INTO ACCOUNT THAT THE CLIMATE EMERGENCY AFFECTS THE ENTIRE WORLD, AND THAT OBLIGATIONS TO COOPERATE AND ALSO TO PROVIDE REDRESS ARISE FROM THE AMERICAN CONVENTION AND OTHER INTERNATIONAL TREATIES:

QUESTION 1: WHAT CONSIDERATIONS AND PRINCIPLES SHOULD STATES AND INTERNATIONAL ORGANISATIONS TAKE INTO ACCOUNT, COLLECTIVELY AND REGIONALLY, WHEN ANALYSING SHARED BUT DIFFERENTIATED RESPONSIBILITIES IN THE CONTEXT OF CLIMATE CHANGE, FROM THE PERSPECTIVE OF HUMAN RIGHTS AND INTERSECTIONALITY?

ANSWER

117. Sub-sections A to G set out the considerations and principles States and international organisations should take into account, collectively and regionally, when analysing shared but differentiated responsibilities in the context of climate change, from the perspective of human rights and intersectionality. This comprises: (a) international environmental law (**Section VI.A**); (b) the obligation not to cause transboundary harm (**Section VI.B**); (c) the obligation to protect and preserve the environment within a State's own jurisdiction (**Section VI.C**); (d) the obligation to protect and preserve the environment in areas beyond national control (**Section VI.D**); (e) the obligation to mitigate and repair (**Section VI.E**); (f) the obligation to cooperate (**Section VI.F**); and (g) the obligation to compensate (**Section VI.G**).

A. States should take into account international environmental law norms when analysing their responsibilities in the context of climate change from the perspective of human rights

118. Human rights and international environmental law norms are closely interlinked in the context of the climate emergency. As a result of this interdependence, States party to the American Convention on Human Rights should take international environmental law into account in analysing their responsibilities in the context of climate change from the perspective of human rights.
119. The climate emergency is both an international environmental law and a human rights matter. The climate emergency is central to international environmental law. As

described below, international environmental law contains obligations and principles on how States should act in relation to the climate emergency.

120. The climate emergency is also a human rights issue. The climate emergency has a significant deleterious impact on the full and effective enjoyment of human rights. As this Court observed, “there is an undeniable link between the protection of the environment and the enjoyment of other human rights.”¹⁸⁵ For example, global warming causes food insecurity, forced migration, diseases and death.¹⁸⁶ Environmental pollution has a destructive impact on human health and lifespan.¹⁸⁷ These and other components of the climate emergency affect a range of human rights protected in the inter-American human rights system, including the right to life, food, housing, health, property water, sanitation, self-determination, the rights of the child and the right to a healthy environment.¹⁸⁸

¹⁸⁵ *Case of Kawas-Fernández v Honduras. Merits, Reparations, and Costs*. Judgment of April 3, 2009. Series C No. 196 (“**Case of Kawas-Fernández v Honduras**”), paragraph 148, Annex 249; “Report No. 125/12, Case 12.354, Kuna of Madungandí and Emberá of Bayano Indigenous Peoples and Their Members v Panama”, *Inter-American Commission on Human Rights*, 13 November 2012, paragraph 233 (“although neither the American Declaration of the Rights and Duties of Man nor the American Convention on Human Rights includes any express reference to the protection of the environment, it is clear that several fundamental rights enshrined therein require, as a precondition for their proper exercise, a minimal environmental quality, and suffer a profound detrimental impact from the degradation of the natural resource base. The IACHR has emphasized in this regard that there is a direct relationship between the physical environment in which persons live and the rights to life, security, and physical integrity. These rights are directly affected when there are episodes or situations of deforestation, contamination of the water, pollution, or other types of environmental harm on their ancestral territories”), Annex 308.

¹⁸⁶ See “Climate Emergency: Scope of Inter-American Human Rights Obligations”, Resolution 3/2021, *Inter-American Commission on Human Rights*, 31 December 2021 (“**IACHR Climate Emergency Resolution**”), page 5, Annex 97; Section IV above.

¹⁸⁷ See Section IV above.

¹⁸⁸ See American Convention on Human Rights, Articles 4, 19, 21, 22 and 26, Annex 1; *Case of the Indigenous Communities of the Lhaka Honhat Association (Our Land) v Argentina. Merits, Reparations and Costs*. Judgment of February 6, 2020. Series C No. 400 (“**Case of the Indigenous Communities of the Lhaka Honhat Association (Our Land) v Argentina**”), paragraphs 202-254, Annex 252; UN Human Rights Council Resolution 7/14 (2008), A/HRC/RES/7/14, 27 March 2008, Preamble, page 2, Annex 113; Report of the United Nations High Commissioner for Human Rights, Analytical study of the relationship between human rights and the environment, A/HRC/19/34, 16 December 2011, paragraphs 23-28, Annex 413; IACHR Climate Emergency Resolution, page 5, Annex 97; UN Human Rights Council Resolution 10/4 (2009), A/HRC/RES/10/4, 25 March 2009 (“**UN Human Rights Council Resolution 10/4**”), Preamble, page 1, Annex 115; UN Human Rights Council Resolution 41/21 (2019), A/HRC/RES/41/21, 23 July 2019, Preamble, page 2, Annex 118; Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox: Mapping Report, A/HRC/25/53, 30 December 2013, paragraphs 18-22, Annex 417; Protocol of San Salvador, Articles 10, 11, 12 and 16, Annex 1 Bis.

121. This Court has repeatedly recognised the intricate link between climate change and human rights. As observed by the Court itself:

[t]his Court has recognized the existence of an undeniable relationship between the protection of the environment and the realization of other human rights, in that environmental degradation and the adverse effects of climate change affect the real enjoyment of human rights.¹⁸⁹

122. The Court then went on to restate this point with even greater emphasis:

[n]umerous points of interconnection arise from this relationship of interdependence and indivisibility between human rights, the environment, and sustainable development owing to which, as indicated by the Independent Expert, ‘all human rights are vulnerable to environmental degradation, in that the full enjoyment of all human rights depends on a supportive environment.’¹⁹⁰

123. The OAS General Assembly has recognised the same. In 2008, it adopted a resolution stating that “the adverse effects of climate change might have a negative impact on the enjoyment of human rights.”¹⁹¹ And seven years prior, in 2001, the OAS General Assembly underscored the importance of studying the link that may exist between the environment and human rights, recognising the need to promote environmental protection and the effective enjoyment of all human rights. This Court cited these resolutions in the IACtHR 2017 Advisory Opinion.¹⁹²

124. The climate emergency’s devastating effect on the full and effective enjoyment of human rights has also been acknowledged by international human rights bodies, such as the UN Office of the High Commissioner for Human Rights, the UN Human Rights Council and the UN Special Rapporteur on the promotion and protection of human rights in the context of climate change.¹⁹³ This Special Rapporteur described the

¹⁸⁹ IACtHR 2017 Advisory Opinion, paragraph. 47, Annex 235, citing *Case of Kwas-Fernández v Honduras*, paragraph 148, Annex 249.

¹⁹⁰ IACtHR 2017 Advisory Opinion, paragraph 54, Annex 235, citing at footnote 80 *inter alia*: Preliminary report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, A/HRC/22/43, 24 December 2012, paragraph 19, Annex 414.

¹⁹¹ OAS General Assembly Resolution 2429 (2008), AG/RES. 2429 (XXXVIII-O/08), 3 June 2008, Preamble, page 265, Annex 99.

¹⁹² See IACtHR 2017 Advisory Opinion, paragraphs 22 and 49, Annex 235.

¹⁹³ See UN Human Rights Council Resolution 10/4, Preamble, page 1, Annex 115; UN Human Rights Council Resolution 7/23 (2008), A/HRC/RES/7/23, 28 March 2008, Preamble, page 1, Annex 114;

overall effect of inadequate actions to reduce greenhouse gas emissions as a “human rights catastrophe.”¹⁹⁴ As cited by the Court in the IACtHR 2017 Advisory Opinion, the UN Independent Expert on human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment observed that human rights and environmental protection are interdependent because:

human rights are grounded in respect for fundamental human attributes such as dignity, equality and liberty. The realization of these attributes depends on an environment that allows them to flourish. At the same time, effective environmental protection often depends on the exercise of human rights that are vital to informed, transparent and responsive policymaking.¹⁹⁵

125. In the context of the Americas, the IACHR Climate Emergency Resolution warned that climate change “is one of the greatest threats to the full enjoyment and exercise of human rights of present and future generations”¹⁹⁶ and that global warming “threatens the very future of human rights.”¹⁹⁷
126. In the September 2023 hearings before ITLOS on the advisory opinion on climate change, States recognised the need to interpret the UN Convention on the Law of the Sea (“UNCLOS”) and their international environmental law obligations in light of

Response to the request of Ad Hoc Working Group on the Paris Agreement (APA) to provide information, views and proposals on any work of the APA before each of its sessions, Office of the United Nations High Commissioner for Human Rights, FCCC/APA/2016/2, 6 May 2017, page 4, Annex 421; Note by the UN Secretary-General, Promotion and protection of human rights in the context of climate change, A/77/226, 26 July 2022 (“**UN Secretary General’s Note on Human Rights and Climate Change**”), paragraphs 6 and 8, Annex 429. *See also* “Report No. 330/20, Case 12.718, La Oroya Community v Peru”, OEA/Ser.L/V/II, *Inter-American Commission on Human Rights*, 19 November 2020, paragraph 142, Annex 309; “Indigenous and Tribal Peoples’ Rights over their Ancestral Lands and Natural Resources, Norms and Jurisprudence of the Inter-American Human Rights-System”, OEA/Ser.L/V/II. Doc. 56/09, *Inter-American Commission on Human Rights*, 30 December 2009 (“**IACHR, Indigenous and Tribal Peoples’ Rights**”), paragraph 190, Annex 404; “Decision on Communication 155/96, The Social and Economic Rights Action Center and the Center for Economic and Social Rights / Nigeria”, *African Commission on Human and Peoples’ Rights*, ACHPR/COMM/A044/1, 27 May 2002 (“**African Commission Decision on Communication 155/96**”), paragraph 51, Annex 324.

¹⁹⁴ UN Secretary General’s Note on Human Rights and Climate Change, paragraph 7, Annex 429.

¹⁹⁵ IACtHR 2017 Advisory Opinion, paragraph 51, Annex 235, citing Preliminary report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox, A/HRC/22/43, 24 December 2012, paragraph 10, Annex 414.

¹⁹⁶ IACHR Climate Emergency Resolution, page 8, Annex 97.

¹⁹⁷ IACHR Climate Emergency Resolution, page 5, Annex 97.

human rights.¹⁹⁸ After all, under the UN Charter, all UN Member States agree to cooperate in “promoting and encouraging respect for human rights and for fundamental freedoms.”¹⁹⁹

127. Both human rights and international environmental norms are thus affected by the climate emergency. As a result, these two bodies of law interact in a myriad of ways and are interdependent. As noted by this Court in the IACtHR 2017 Advisory Opinion, “there is extensive recognition of the interdependent relationship between protection of the environment, sustainable development, and human rights in international law,” including in the Stockholm Declaration, the Rio Declaration and the Johannesburg Declaration.²⁰⁰
128. One way in which human rights and environmental law interact is that human rights obligations of States support the shared but differentiated responsibilities of States in the context of climate change, including the obligations set out in this **Section VI.A** (below). As the Inter-American Commission on Human Rights (“**IACHR**”) has noted, States have a duty to protect and ensure the full and effective enjoyment of human rights.²⁰¹ From this follows that States must act to protect human rights from the effects of the climate emergency, including by giving full effect to their obligations under international environmental law. The IACHR stated, in a passage cited (in part and with approval) by this Court:²⁰²

[a]lthough neither the American Declaration of the Rights and Duties of Man, nor the American Convention on Human Rights, contain express references to the protection of the environment, several fundamental rights require, as a necessary precondition for their enjoyment, a minimum environmental quality, and are profoundly affected by the degradation of natural resources. The IACHR has emphasized that there is a direct relationship between the physical environment in which persons live, and the rights to life,

¹⁹⁸ In the ITLOS Climate Change Advisory Opinion, *see* Republic of Chile, Oral Statement of 14 September 2023 (am), ITLOS/PV.23/C31/7, page 2, line 25, Annex 223; Republic of Nauru, Oral Statement of 14 September 2023 (pm), ITLOS/PV.23/C31/8, page 29, lines 10-14, Annex 224.

¹⁹⁹ UN Charter, 25 June 1945, XV UNCIO 335, amendments in 557 UNTS 143, 638 UNTS 308 and 892 UNTS 119 (“**UN Charter**”), Article 1(3), Annex 3. *See also* UN Charter, Articles 13(1)(b), 55, 62(2), Annex 3.

²⁰⁰ IACtHR 2017 Advisory Opinion, paragraph 52, Annex 235.

²⁰¹ *See* IACHR Climate Emergency Resolution, paragraph 9, Annex 97.

²⁰² *See* IACtHR 2017 Advisory Opinion, paragraph 49, Annex 235.

security and physical integrity: ‘The realization of the right to life, and to physical security and integrity is necessarily related to and in some ways dependent upon one’s physical environment. Accordingly, where environmental contamination and degradation pose a persistent threat to human life and health, the foregoing rights are implicated.’²⁰³

129. The climate emergency has a significant adverse effect on the environment that impacts the enjoyment of human rights. As such, in the words of the Special Rapporteur, “States are obliged to take measures to mitigate climate change and to regulate the emissions of those businesses under their jurisdictions in order to prevent foreseeable negative impacts on human rights.”²⁰⁴ This obligation is also included in the IACHR Climate Emergency Resolution.²⁰⁵ This resolution also notes that the common but differentiated responsibilities of States in the context of climate change means that States must satisfy this obligation “to the maximum of the resources available to the State.”²⁰⁶ The relevant provision of the IACHR Climate Emergency Resolution reads as follows:

for the effective protection of human rights, States must take appropriate measures to mitigate greenhouse gases, implement adaptation measures and remedy the resulting damages. These obligations should not be neglected because of the multi-causal nature of the climate crisis, as all States have common but differentiated obligations in the context of climate action. As with economic, social, and cultural rights, environmental rights, in the context of climate change, must be guaranteed to the maximum of the resources available to the State in order to progressively achieve their full effectiveness by all appropriate means.²⁰⁷

130. A further way in which human rights and international environmental law interact is that States must implement climate change policies (including policies based on international environmental law): both (a) in a manner that does not breach human

²⁰³ IACHR, Indigenous and Tribal Peoples’ Rights, paragraph 190, Annex 404, citing “Report on the Situation of Human Rights in Ecuador”, Doc. OEA/Ser.L/V/II.96, Doc. 10 rev.1, *Inter-American Commission on Human Rights*, 24 April 1997, Annex 403. See also, e.g., American Declaration of the Rights and Duties of Man, OAS Resolution XXX, adopted by the Ninth International Conference of American States (1948), reprinted in Basic Documents Pertaining to Human Rights in the Inter-American System, OEA/Ser.L.V/II.82 doc.6 rev.1 at 17 (1992) (“**American Declaration of the Rights and Duties of Man**”), Article I, Annex 98.

²⁰⁴ UN Secretary General’s Note on Human Rights and Climate Change, paragraph 9, Annex 429.

²⁰⁵ See IACHR Climate Emergency Resolution, paragraph 15, Annex 97.

²⁰⁶ IACHR Climate Emergency Resolution, paragraph 15, Annex 97.

²⁰⁷ IACHR Climate Emergency Resolution, paragraph 15, Annex 97.

rights;²⁰⁸ and, more substantially, (b) in a way that promotes the enjoyment of human rights. In respect of the first point, the Special Rapporteur on the promotion and protection of human rights has observed:

[m]itigation efforts to reduce greenhouse gas emissions have two implications on the enjoyment of human rights. First, an inadequate response to reducing greenhouse gas emissions has a significant negative impact on the enjoyment of human rights. Second, some mitigation actions have a significant impact on the exercise of human rights.²⁰⁹

131. The second point is noted in the preamble to the Paris Agreement, which provides that:

Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity.²¹⁰

132. This is underlined by the findings of international human rights commissions. The UN Human Rights Council has acknowledged that human rights “inform and strengthen international and national policymaking in the area of climate change.”²¹¹ The IACHR has emphasised that “a human rights-based approach to the implementation of international commitments on environmental law and climate

²⁰⁸ See IACHR Climate Emergency Resolution, paragraph 3, Annex 97; UN Secretary General’s Note on Human Rights and Climate Change, paragraph 6, Annex 429.

²⁰⁹ UN Secretary General’s Note on Human Rights and Climate Change, paragraph 6, Annex 429. See also UN Human Rights Council Resolution 32/33 (2016), A/HRC/RES/32/33, 18 July 2016, page 3, Annex 117; Sharm el-Sheikh Implementation Plan, Decision 1/CP.27, Report of the Conference of the Parties on its twenty-seventh session, held in Sharm el-Sheikh from 6 to 20 November 2022 Addendum Part two: Action taken by the Conference of the Parties at its twenty seventh session FCCC/CP/2022/10/Add.1, 17 March 2023, Preamble and paragraph 19, Annex 189; B. Mayer, “Climate Change Mitigation as an Obligation Under Human Rights Treaties?”, *American Journal of International Law*, 2021, pages 416, 417, Annex 479; “Climate Change and Human Rights”, *United Nations Environment Programme*, December 2015, page 19, Annex 418.

²¹⁰ Paris Agreement, 12 December 2015, 3156 UNTS 79 (“**Paris Agreement**”), Preamble, page 144, Annex 93.

²¹¹ UN Human Rights Council Resolution 10/4, Preamble, page 2, Annex 115.

change enhances the effectiveness of national responses to climate change taking into account traditional and local knowledge.”²¹²

133. It follows from this interaction between human rights and international environmental law that States should take international environmental law into account in analysing their responsibilities in the context of climate change from the perspective of human rights.
134. Further, the Court should interpret the provisions of the American Convention on Human Rights so as: (a) not to restrict the enjoyment of any right in the laws of a State or recognised by it in another convention;²¹³ and (b) not to exclude or to limit the effect that the American Declaration of the Rights and Duties of Man and other international acts of the same nature may have.²¹⁴
135. In addition, international environmental law principles are customary law and a condition of human existence. As late Judge Christopher Weeramantry, previous Vice-President of the ICJ, in his dissenting opinion in the *Nuclear Weapons Advisory Opinion* considered:

principles of environmental law thus do not depend for their validity on treaty provisions. They are part of customary international law. They are part of the *sine qua non* for human survival.²¹⁵

136. The following Sections set out the obligations of States under international law in relation to the climate emergency and how human rights bolsters these obligations.

B. Obligation not to cause transboundary harm: States must ensure that activities within their jurisdiction and control do not harm the environment of other States

137. In analysing shared but differentiated responsibilities in the context of climate change, including from the perspective of human rights and intersectionality, States party to

²¹² IACHR Climate Emergency Resolution, page 9, Annex 97.

²¹³ See American Convention on Human Rights, Article 29(b), Annex 1.

²¹⁴ See American Convention on Human Rights, Article 29(d), Annex 1.

²¹⁵ *Nuclear Weapons Advisory Opinion*, Dissenting Opinion of Judge Weeramantry, page 504, Annex 265.

the American Convention on Human Rights should take account of the obligation not to cause transboundary harm, including environmental harm.

138. It is well-established in customary international law that States cannot cause transboundary harm, i.e., they cannot conduct or even permit activities in their own territory that harm the territories of other States.²¹⁶ This well-established principle applies to climate change.
139. This obligation pre-dates even the Industrial Revolution. The *sic utere tuo ut alienum non laedas* principle (in English, “use your own property in such a way that you do not injure other people’s”)²¹⁷ has been well-established since the time of Roman law.²¹⁸
140. Modern international instruments document the obligations not to cause transboundary environmental harm. For example:
- a. under the Convention on the Law of the Non-Navigational Uses of International Watercourse, 41 States recognise a duty that mandates countries using an international watercourse within their territories to take suitable measures to avert causing significant harm to other countries sharing the same watercourse.²¹⁹ This convention has been described as a codification of customary international law in respect to obligations to equitable and reasonable utilisation, prevention of significant harm and prior notification of planned measures;²²⁰

²¹⁶ See *Nuclear Weapons Advisory Opinion*, paragraph 29, Annex 264.

²¹⁷ A. Watson, *The digest of Justinian, Volume 1* (University of Pennsylvania Press, 1985), Digest 8.5.8.5., pages 269-270, Annex 464; J. Law & E. A. Martin, “sic utere tuo ut alienum non laedas”, in *A DICTIONARY OF LAW*, (Oxford University Press, 2015), Annex 468.

²¹⁸ See *Nuclear Tests (Australia v France)*, Judgment of 20 December 1974, *I.C.J. Reports 1974*, p. 253, Dissenting Opinion of Judge Castro, page 388, Annex 261.

²¹⁹ See Convention on the Law of the Non-Navigational Uses of International Watercourses, 21 May 1997, 2999 UNTS 77 (“**Convention on the Law of the Non-Navigational Uses of International Watercourses**”), Article 7(1) (“Watercourse States shall, in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse States”), Annex 66.

²²⁰ See S. C. McCaffrey, “Introductory note to the Convention on the Law of the Non-navigational Uses of International Watercourses”, *United Nations Audiovisual Library of International Law*, 30 June 2008, Annex 462.

- b. under UNCLOS, 168 States and the European Union recognise the *sic utere tuo* principle;²²¹
- c. under the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 52 States undertake to take all appropriate measures to “prevent, control and reduce” any transboundary impact;²²²
- d. under the Vienna Convention for the Protection of the Ozone Layer, 197 States and the European Union recognise they must “adopt appropriate legislative or administrative measures and co-operate in harmonising appropriate politics to control, limit, reduce, or prevent human activities under their jurisdiction or control should it be found that these activities have or are likely to have adverse effects resulting from modification or likely modification of the ozone layer”;²²³
- e. under the Convention on long-range transboundary air pollution, 52 States and the European Union state they are “determined to protect man and his environment against air pollution and shall endeavour to limit and, as far as possible, gradually reduce and prevent air pollution including long-range transboundary air pollution”;²²⁴ and
- f. under the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 79 States recognise that the Contracting States have “the responsibility to ensure that activities within their jurisdiction or control

²²¹ See UNCLOS, 10 December 1982, 1833 UNTS 3, Article 194(2) (“States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention”), Annex 32.

²²² Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 17 March 1992, 1936 UNTS 269 (“**Convention on the Protection and Use of Transboundary Watercourses and International Lakes**”), Article 2, Annex 47.

²²³ Vienna Convention for the Protection of the Ozone Layer, 22 March 1985, 1513 UNTS 293 (“**Vienna Convention for the Protection of the Ozone Layer**”), Article 2, Annex 35.

²²⁴ Convention on long-range transboundary air pollution, 13 November 1979, 1302 UNTS 217, Article 2, Annex 26.

do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”²²⁵

141. Regional conventions also refer to the same legal prohibition on transboundary harm:
- a. under the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, 21 States and the European Union recognise they must “take all appropriate measures to prevent, abate and to the fullest possible extent eliminate pollution of the environment which can be caused by transboundary movements and disposal of hazardous wastes, and to reduce to a minimum, and if possible, eliminate such transboundary movements”;²²⁶
 - b. under the Protocol for the protection of the Mediterranean Sea resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil, 14 States and the European Union agree to “take all measures necessary to ensure that activities under [their] jurisdiction are so conducted as not to cause pollution beyond the limits of [their] jurisdiction”;²²⁷
 - c. under the ASEAN Agreement on Transboundary Haze Pollution, 10 States acknowledge, “in accordance with the Charter of the United Nations and the principles of international law”, their “responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment and harm to human health of other States or of areas beyond the limits of national jurisdiction”;²²⁸ and
 - d. under the Protocol Concerning Pollution from Land-Based Sources and Activities to the Convention for the Protection and Development of the Marine

²²⁵ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 29 December 1972, 1046 UNTS 120, Preamble, Annex 19.

²²⁶ Amendments to the Convention for the Protection of the Mediterranean Sea Against Pollution (the title of the Convention was amended as: Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean), 10 June 1995, OJ L 322, Article 11, Annex 62.

²²⁷ Protocol for the Protection of the Mediterranean Sea against pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil, 14 October 1994, OJ L 4/15, Article 26(1), Annex 60.

²²⁸ ASEAN Agreement on Transboundary Haze Pollution, 10 June 2002, Article 3(1), Annex 77.

Environment of the Wider Caribbean Region, 12 States agree to consult with each other to resolve the issue of transboundary pollution.²²⁹

142. In addition to such binding instruments, non-binding instruments also hold particular importance in the Court’s analysis. Non-binding instruments gain significant legal weight when they are consistently reaffirmed by international entities and authorities over time.²³⁰ This reaffirmation often plays a substantial role in shaping and recognising international legal norms originating from conventional sources.²³¹ The following non-binding instruments confirm the obligation against transboundary harm:

- a. in 1972 and 1974, UN Member States twice accepted the responsibility not to cause transboundary harm, in the 1972 Stockholm Declaration (adopted by 113 States) and General Assembly Resolution 3281 (XXIX) (1974), A/9946 (adopted with votes from 121 States in favour);²³²
- b. by General Assembly Resolution 37/7 (1982) (adopted with votes from 111 States in favour), UN Member States committed to ensure that their activities do not cause any harm to “natural systems located within other States or in the areas beyond the limits of national jurisdiction”;²³³

²²⁹ See Protocol Concerning Pollution from Land-Based Sources and Activities to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, 6 October 1999, US Treaty Series 10-813, Article IX, Annex 71.

²³⁰ See K. Schmalenbach, *States Responsibility and Liability for Transboundary Environmental Harm*, in CORPORATE LIABILITY FOR TRANSBOUNDARY ENVIRONMENTAL HARM: AN INTERNATIONAL AND TRANSNATIONAL PERSPECTIVE, ed. K. Schmalenbach et al. (Springer, 2023), page 55, Annex 490.

²³¹ See J. Friedrich, *International environmental “soft law”* (Springer, 2013), pages 143-170, Annex 466.

²³² See Report of the United Nations Conference on the Human Environment, Declaration of the United Nations Conference on the Human Environment, A/CONF.48/14/Rev.1, 16 June 1972 (“**Stockholm Declaration**”), Principle 21 (“States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction”), Annex 153. See also UN General Assembly Resolution 3281(XXIX) (1974), A/9946, 12 December 1974, Article 30 (“All States have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction”), Annex 103.

²³³ UN General Assembly Resolution 37/7 (1982), A/RES/37/7, 29 October 1982, Principle 21(d), Annex 105.

- c. the UN Conference on Environment and Development in 1989 reaffirmed States’ “responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction”,²³⁴
 - d. during the UN Conference on Environment and Development in 1992, 179 States adopted the Rio Declaration on Environment and Development and agreed to cooperate and notify to prevent any transboundary harm;²³⁵ and
 - e. in 2001, the ILC proclaimed that States “shall take all appropriate measures to prevent significant transboundary harm.”²³⁶
143. International case law, including that of the ICJ, also reflects the importance of the obligation not to cause transboundary harm, including environmental harm:
- a. in *Corfu Channel*, the ICJ ruled that there is “every State’s obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States”,²³⁷
 - b. in the *Nuclear Weapons Advisory Opinion*, as noted above, the ICJ confirmed this principle and established that the “existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the

²³⁴ UN General Assembly Resolution 44/228 (1989), A/RES/44/228, 22 December 1989, paragraph 7, Annex 108.

²³⁵ See Report of the United Nations Conference on the Human Environment and Development, Rio Declaration on Environment and Development, A/CONF.151/26/Rev.1 (Vol. 1), June 3-14 1992 (“**Rio Declaration**”), Principle 14 (“States should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health”) and Principle 18 (“States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted”), Annex 157.

²³⁶ “Draft Articles on Prevention of Transboundary Harm from Hazardous Activities”, Report of the Commission to the General Assembly on the work of its fifty-third session, Yearbook of the International Law Commission, A/CN.4/SER.A/2001/Add.1 (Part 2), *International Law Commission*, 10 August 2001 (“**Draft Articles on Prevention of Transboundary Harm**”), Article 3, Annex 437.

²³⁷ *Corfu Channel (United Kingdom of Great Britain and Northern Ireland v Albania)*, Merits, Judgment of 9 April 1949, *I.C.J. Reports 1949*, p. 4, page 22, Annex 256.

environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment”,²³⁸

- c. in *Pulp Mills*, the ICJ added that “the principle of prevention, as a customary rule, has its origins in the due diligence that is required of a State in its territory . . . A State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State. This Court has established that this obligation ‘is now part of the corpus of international law relating to the environment.’”²³⁹ The ICJ also stated that “it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have significant adverse impact in a transboundary context, in particular, on a shared resource”;²⁴⁰
- d. in *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v Nicaragua)*, the ICJ set out procedural and substantive obligations of States that flow from the obligation not to cause transboundary harm, including the obligation to undertake an environmental impact assessment and the “obligation to exercise due diligence in preventing significant transboundary environmental harm”;²⁴¹ and
- e. in the *Trail Smelter Arbitration*, in awarding damages for transboundary harm, the tribunal confirmed that “under the principles of international law, as well as of the law of the United States of America, 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

²³⁸ *Nuclear Weapons Advisory Opinion*, paragraph 29, Annex 264.

²³⁹ *Case of Pulp Mills on the River Uruguay (Argentina v Uruguay)*, *Judgment of 20 April 2010*, I.C.J. Reports 2010, p. 14 (“**Pulp Mills**”), paragraph 101, Annex 272.

²⁴⁰ *Pulp Mills*, paragraph 204, Annex 272.

²⁴¹ *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 of 16 December 2015*, I.C.J. Reports 2015, p. 665 (“**Certain Activities Carried Out by Nicaragua in the Border Area Merits Judgment**”), paragraph 153, Annex 278.

is of serious consequence and the injury is established by clear and convincing evidence.”²⁴²

144. The opinions of the most highly qualified publicists also concur. For example, a group of human rights and environmental law experts (including former judges of the European Court of Human Rights (“**ECtHR**”), Paulo Pinto de Albuquerque and Helen Keller, and UN Special Rapporteur on Human Rights and the Environment, David R. Boyd) have drafted the Strasbourg Principles, which note that States have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States.²⁴³ In addition, in 1986, the International Law Association, a non-governmental organisation created to study the developments of international law, drafted rules on international groundwaters that included an obligation on basin States to “prevent or abate the pollution of international groundwaters in accordance with international law applicable to existing, new, increased and highly dangerous pollution.”²⁴⁴
145. States also recognise the existence of the obligation not to cause transboundary harm through their practice:
- a. the United States of America consented to Canada damming the St Lawrence River with a part of it being in the American territory, under some conditions, one being that “if the construction and operation of the said dam causes damage or detriment to the property owners of Les Galops Island or to the property of any other citizens of the United States, the government of Canada shall pay such amount of compensation as may be agreed upon between the said government and parties damaged, or as may be awarded the said parties in

²⁴² *Trail Smelter Arbitration (United States v Canada)*, Awards, 16 April 1938 and 11 March 1941, RIAA, Vol. III, p. 1905 (“**Trail Smelter Arbitration**”), page 1965, Annex 300.

²⁴³ See “The Strasbourg Principles of International Environmental Human Rights Law – 2022”, *Journal of Human Rights and the Environment*, 2022, pp. 195-2020 (“**Strasbourg Principles**”), Principle 36, Annex 489.

²⁴⁴ “Rules on International Groundwaters”, Report of the Sixty-Second Conference, Seoul Conference Report, 1986, Committee on International Water Resources, pp. 251-274, *International Law Association*, Article 3(1), Annex 453 Bis.

the proper court of the United States before which claims for damage may be brought”;²⁴⁵ and

- b. the United Kingdom reserved its right “with the Soviet Government to claim compensation on our own behalf on behalf of [our] citizens for any losses suffered as a consequence of the accident at Chernobyl” on 21 July 1986.²⁴⁶

146. Therefore, the obligation not to cause transboundary harm is well-established and also applies to the legal questions posed in this advisory opinion request, relating to climate change. Whether the requirement under this obligation is for the transboundary harm to be “significant” (which is debateable), it is clearly met as described in **Section IV**.

C. Obligation to protect and preserve the environment: States must protect and preserve their own internal environment within a State’s own territory for the benefit of their own people

147. In analysing shared but differentiated responsibilities in the context of climate change, including from the perspective of human rights and intersectionality, States party to the American Convention on Human Rights should take account of the obligation to protect and preserve their own internal environment in order to protect their own peoples from harm.

148. This Section explains that the obligation to protect and preserve the environment is an obligation that arises out of the international obligation not to harm humans within a State’s own jurisdiction and control (*see* sub-section (i)) and that it is enforceable on a State-to-State level (*see* sub-section (ii)).

- (i) The obligation to protect and preserve one’s own environment arises from the obligation not to harm people within a State’s own jurisdiction and control

149. As attested by historical legal authorities, States have always had an obligation to preserve their own environment to benefit their own citizens:

²⁴⁵ “Canada-United States Settlement of Gut Dam Claims: Report of the Agent of the United States Before the Lake Ontario Claims Tribunal”, *International Legal Materials*, 1969, page 120, Annex 151.

²⁴⁶ Statement by Ronald Timothy Renton, Baron Renton of Mount Harry, PC, DL, UK Parliament Hansard, Chernobyl Disaster (Compensation), Volume 102: debated on Monday 21 July 1986, Annex 155.

- a. under the Roman law public trust doctrine, waters and resources were government property but all Roman citizens had the right to occupy and use them.²⁴⁷ Courts in the United States of America relying on this doctrine have held that public authorities hold waterways and related resources in trust for the benefit of citizens;²⁴⁸
 - b. environmental conservation was a component of public health (*salubritas*) regulations under Roman law;²⁴⁹
 - c. legislation in the 13th century in England prohibited the burning of coal as a matter of public health due to its noxious release of chemicals;²⁵⁰ and
 - d. legislation in medieval Northern Italy aimed at limiting pollution within cities to protect the communal environment.²⁵¹
150. Today, in international conventions, States further document the obligation to protect and preserve the environment, including within their jurisdiction and control. For example:
- a. under the Convention on Biological Diversity, 195 States and the European Union confirm that “[States have] sovereign rights over their own biological resources [and are] responsible for conserving their biological diversity and for using their biological resources in a sustainable manner.”²⁵² Those States also
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- ²⁴⁷ See B. Frey, “The Public Trust in Public Waterways”, *Urban Law Annual*, 1974, pages 220-222, Annex 453.
- ²⁴⁸ See, e.g., *Illinois Central Railroad Co. v Illinois*, 146 U.S. 387 (1892), Annex 325.
- ²⁴⁹ See M. Jimenez Salcedo, “Initiatives of the Roman Administration and Urban Environment”, *Ius Romanum*, 2018, pages 164–165, Annex 471.
- ²⁵⁰ See, e.g., D. Fowler et al., “A chronology of global air quality”, *Philosophical Transactions of the Royal Society*, 2020, page 5, Annex 474; H. C. Maxwell Lyte, *Calendar of Close Rolls, Edward I: Volume 5, 1302-1307* (His Majesty's Stationery Office, 1908. British History Online), page 537, Annex 131; H. C. Maxwell Lyte, *Calendar of Patent Rolls, Edward I: Volume 4, 1301-1307* (His Majesty's Stationery Office, 1898. British History Online), page 549, Membrane 5d, Annex 130; Smoke Abatement, London Act 1853, 1853(16 & 17 Vict.) C. 128, Annex 129.
- ²⁵¹ See R. E. Zupko & R. A. Laures, *Straws in the Wind: Medieval Urban Environmental Law the Case of Northern Italy* (Routledge, 1996), pages 97–99, 104–107, Annex 457.
- ²⁵² Convention on Biological Diversity, 5 June 1992, 1760 UNTS 79 (“**Convention on Biological Diversity**”), Preamble, Annex 51.

affirm that “the conservation of biological diversity is a common concern of humankind”,²⁵³

b. under UNCLOS, 168 States and the European Union agree that “States have the obligation to protect and preserve the marine environment.”²⁵⁴ UNCLOS defines “pollution of the marine environment” as the “introduction by man . . . of substances or energy into the marine environment . . . which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health”;²⁵⁵ and

c. under the Alpine Convention, 8 States commit to take certain measures, including regarding “prevention of air pollution,” where the “objective is to drastically reduce the emission of pollutants and pollution in the Alpine region . . . to a level which is not harmful to man, animals and plants.”²⁵⁶

151. Reflecting the universal legal obligation under the UN Charter to promote and encourage respect for human rights and fundamental freedoms,²⁵⁷ States have agreed in international conventions on human rights to protect and preserve the environment to prevent harm to humankind:

a. under the American Convention on Human Rights, 16 American States must “undertake to adopt measures . . . with a view to achieving progressively . . . the full realization of the rights implicit in the economic, social, educational, scientific, and cultural standards set forth in the Charter of the Organization of American States.”²⁵⁸ As this Court has already stated, this entails ensuring sustainable development also in the environmental sphere.²⁵⁹ This Court noted that its observations on environmental obligations go beyond States party to

²⁵³ Convention on Biological Diversity, Preamble, Annex 51.

²⁵⁴ UNCLOS, Article 192, Annex 32.

²⁵⁵ UNCLOS, Article 1(4), Annex 32.

²⁵⁶ Alpine Convention, 7 November 1991, Article 2(2)(c), Annex 46.

²⁵⁷ See paragraph 126 above. See also UN Charter, Articles 1(3), 13(1)(b), 55, 62(2), Annex 3.

²⁵⁸ American Convention on Human Rights, Article 26, Annex 1. See also, e.g., Charter of the Organization of American States, 30 April 1948 (“OAS Charter”), Articles 3(k)-(m) and 30, Annex 2.

²⁵⁹ See IACtHR 2017 Advisory Opinion, paragraph 57, footnote 85, Annex 235.

the treaty it was interpreting and are “important for all States of the planet.”²⁶⁰ This Court also clarified that this obligation entails a right to a healthy environment and that this requires States to “implement the necessary measures *ex ante* damage is caused to the environment, taking into account that, owing to its particularities, after the damage has occurred, it will frequently not be possible to restore the previous situation.”²⁶¹ On the basis of this obligation of the American Convention on Human Rights, in 2020, this Court found that a State had violated the right to a healthy environment by, among other things, failing to prevent illegal logging causing harm to the territory of indigenous communities and thereby negatively affecting the lives of those communities;²⁶²

- b. under the Protocol of San Salvador to the American Convention on Human Rights, 16 American States recognise that “[e]veryone has a right to live in a healthy environment and to have access to basic public services,” and therefore they are obliged to “promote the protection, preservation, and improvement of the environment”;²⁶³
- c. under the Escazú Agreement, 15 Latin American and Caribbean States agree that they are obligated to “guarantee the right of every person to live in a healthy environment”;²⁶⁴
- d. under the Inter-American Convention on Protecting the Human Rights of Older Persons, 8 Latin American States recognise that “[o]lder persons have

²⁶⁰ IACtHR 2017 Advisory Opinion, paragraph 35, Annex 235.

²⁶¹ *Case of the Indigenous Communities of the Lhaka Honhat Association (Our Land) v Argentina*, paragraph 208, Annex 252. *See also Case of the Indigenous Communities of the Lhaka Honhat Association (Our Land) v Argentina*, paragraphs 202-203, Annex 252; IACtHR 2017 Advisory Opinion, paragraph 57, Annex 235.

²⁶² *See Case of the Indigenous Communities of the Lhaka Honhat Association (Our Land) v Argentina*, Annex 252.

²⁶³ Protocol of San Salvador, Article 11, Annex 1 Bis.

²⁶⁴ Escazú Agreement, Article 4(1), Annex 94. *See also* Escazú Agreement, Article 1, Annex 94.

the right to live in a healthy environment with access to basic public services”;²⁶⁵

- e. under the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 47 States recognise the “right of every person of present and future generations to live in an environment adequate to his or her health and well-being”;²⁶⁶
 - f. under the African Charter on Human and Peoples’ Rights, 54 States are obligated to ensure that “[a]ll peoples . . . have the right to general satisfactory environment favourable to their development”;²⁶⁷
 - g. under the Protocol to the African Charter on Human and Peoples’ Rights on the Rights of Women in Africa, 42 States are obligated to ensure that “[w]oman shall have the right to live a healthy and sustainable environment” and “the right to fully enjoy their right to sustainable development”;²⁶⁸ and
 - h. under the Arab Charter on Human Rights, 16 States recognise the “right to a healthy environment” and that States shall take the necessary measures “commensurate with their resources to guarantee these rights.”²⁶⁹
152. The International Covenant on Economic, Social and Cultural Rights acknowledges that its 171 State parties must take certain steps to achieve the full realisation of the right to physical and mental health, which include “the improvement of all aspects of environmental and industrial hygiene.”²⁷⁰ According to the Committee on Economic, Social and Cultural Rights, States should therefore: (a) prevent and reduce “the population’s exposure to harmful substances such as radiation and harmful chemicals

²⁶⁵ Inter-American Convention on Protecting the Human Rights of Older Persons, 5 June 2015, 3175 UNTS 1, Article 25, Annex 92.

²⁶⁶ Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters “Aarhus Convention”, 25 June 1998, 2161 UNTS 447, Article 1, Annex 70.

²⁶⁷ African Charter on Human and Peoples’ Rights, 27 June 1981, 1520 UNTS 217 (“**African Charter on Human and People’s Rights**”), Article 24, Annex 29.

²⁶⁸ Protocol to the African Charter on Human and Peoples’ Rights on the Rights of Women in Africa, 11 July 2003, 3269 UNTS 1, Articles 18 and 19, Annex 81.

²⁶⁹ Arab Charter on Human Rights, 22 May 2004, CHR/NONE/2004/40/Rev.1, Article 38, Annex 83.

²⁷⁰ International Covenant on Economic, Social and Cultural Rights, 16 December 1966, 993 UNTS 3 (“**ICESCR**”), Article 12(2), Annex 10.

or other detrimental environmental conditions that directly or indirectly impact on human health”; (b) “refrain from unlawfully polluting air, water and soil, e.g., through industrial waste from State-owned facilities, from using or testing nuclear, biological or chemical weapons if such testing results in the release of substances harmful to human health”; and (c) “formulate and implement national policies aimed at reducing and eliminating pollution of air, water and soil.”²⁷¹ This obligation goes beyond a State’s borders – States must respect this right in other countries (including to prevent third parties in other countries from violating it) by influencing other States and through influencing actions of international organisations (along with international financial institutions and development banks formulating policies, credit agreements, etc.).²⁷²

153. Even where an international convention does not provide for an express right to a healthy environment or non-polluted climate system, treaty bodies (e.g., committees, commissions and courts) have interpreted human rights as requiring States to ensure this. This Court has underlined in its jurisprudence the “relevance of the environment as a whole for the protection of human rights,”²⁷³ including the territorial rights of indigenous and tribal peoples and right to life.²⁷⁴ The IACHR has equally stated that “several fundamental rights require, as a necessary precondition for their enjoyment, a minimum environmental quality, and are profoundly affected by the degradation of natural resources,” such as the right to life, security and physical integrity.²⁷⁵

²⁷¹ “General Comment No. 14 (2000) – The right to the highest attainable standard of health (Article 12 of the International Covenant on Economic, Social and Cultural Rights”, E/C. 12/2000/4, *UN Committee on Economic, Social and Cultural Rights*, 11 August 2000 (“**General Comment No. 14**”), paragraphs 15, 34 and 36, Annex 317.

²⁷² See General Comment No. 14, paragraph 39, Annex 317.

²⁷³ IACtHR 2017 Advisory Opinion, paragraph 35, Annex 235.

²⁷⁴ See IACtHR 2017 Advisory Opinion, Section VI, Annex 235, referring to further jurisprudence of this Court (see, e.g., *Case of Kawas Fernández v Honduras*, paragraph 148, Annex 249). See also Individual Report on the American Declaration of the Rights and Duties of Man, the American Convention on Human Rights, and the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights, Mapping Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, Report No. 13, prepared for the Independent Expert on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy, and Sustainable Environment, December 2013, Annex 416.

²⁷⁵ IACHR, Indigenous and Tribal Peoples’ Rights, paragraph 190, Annex 404.

154. Other treaty bodies have come to the same conclusions, including bodies whose decisions are legally binding on States. For example:
- a. the ECtHR decided that “severe environmental pollution may affect individuals’ well-being and prevent them from enjoying their homes in such a way as to affect their private and family life adversely, without, however, seriously endangering their health”;²⁷⁶
 - b. the European Committee of Social Rights decided that States have an obligation to protect and preserve the right to health in the context of pollution from human-made emissions from lignite mining;²⁷⁷
 - c. the African Commission on Human and Peoples’ Rights decided that States must “take reasonable and other measures to prevent pollution and ecological degradation, to promote conservation, and to secure an ecologically sustainable development and use of natural resources”;²⁷⁸
 - d. the Committee on the Elimination of Discrimination against Women, the Committee on Economic, Social and Cultural Rights, the Committee on the Protection of the Rights of All Migrant Workers and Members of Their Families, the Committee on the Rights of the Child and the Committee on the Rights of Persons with Disabilities decided that a “[f]ailure to take measures to prevent foreseeable harm to human rights caused by climate change, or to regulate activities contributing to such harm, could constitute a violation of States’ human rights obligations” and “in order for States to comply with their

²⁷⁶ *López Ostra v Spain* [1994] ECHR 46, paragraph 51, Annex 289. There are three climate change-related cases currently pending before the ECtHR and that court has adjourned several other climate change-related cases pending their resolution (see “Factsheet – Climate change”, *European Court of Human Rights*, February 2023, Annex 450).

²⁷⁷ See “Marangopoulos Foundation for Human Rights v Greece”, Complaint No 30/2005, Decision on the Merits, *European Committee of Social Rights*, 6 December 2006, paragraphs 202-203, Annex 322. See also “International Federation for Human Rights v Greece”, Complaint No 72/2011, Decision on the Merits, *European Committee of Social Rights*, 23 January 2013, Annex 323.

²⁷⁸ African Commission Decision on Communication 155/96, paragraph 52, Annex 324.

human rights obligations and to realize the objectives of the Paris Agreement, they must adopt and implement policies aimed at reducing emissions”;²⁷⁹

- e. the Committee on Economic, Social and Cultural Rights noted that States owe an obligation to their own populations and populations outside their territories to “prevent foreseeable human rights harm caused by climate change” and a failure to do so could constitute a breach of human rights;²⁸⁰
- f. the UN Human Rights Committee commented that “[e]nvironmental degradation, climate change and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life”;²⁸¹
- g. the Committee on the Elimination of Discrimination against Women recognised that human-caused changes to the climate exacerbate pre-existing gender inequalities and compound the intersecting forms of discrimination against those who are often disproportionately affected compared others;²⁸² and
- h. the Committee on the Rights of the Child recognised that a “clean, healthy and sustainable environment is both a human right itself and necessary for the full enjoyment of a broad range of children’s rights” and therefore “environmental degradation, including the consequences of the climate crisis, adversely affects the enjoyment of these rights, in particular for children in disadvantaged situations or children living in regions that are highly exposed to climate

²⁷⁹ Joint statement by the Committee on the Elimination of Discrimination against Women, the Committee on Economic, Social and Cultural Rights, the Committee on the Protection of the Rights of All Migrant Workers and Members of Their Families, the Committee on the Rights of the Child and the Committee on the Rights of Persons with Disabilities, HRI/2019/1, 14 May 2020, paragraph 10-11, Annex 426.

²⁸⁰ Statement of the Committee on Economic, Social and Cultural Rights, E/C.12/2018/1, 31 October 2018, paragraphs 5-6, Annex 422.

²⁸¹ “General Comment No. 36 (2019) – Article 6: Right to Life”, CCPR/C/GC/36, *UN Human Rights Committee*, 3 September 2019, paragraph 62, Annex 311. *See also* “Views adopted by the Committee under article 5 (4) of the Optional Protocol, concerning communication No. 3624/2019”, CCPR/C/135/D/3624/2019, *UN Human Rights Committee*, 18 September 2023 (“**Billy v Australia**”), paragraph 8.3, Annex 314.

²⁸² *See* “General recommendation No. 37 (2018) – On the gender-related dimensions of disaster risk reduction in the context of climate change”, CEDAW/C/GC/37, *UN Committee on the Elimination of Discrimination against Women*, 13 March 2018, paragraph 2, Annex 320.

change.”²⁸³ Therefore, States should, among other things, improve air quality and phase out the use of coal, oil and natural gas.²⁸⁴

155. This obligation extends to preventing harm by non-State entities and persons, e.g., private companies and individuals. For example:
- a. this Court noted that States must do so “especially in relation to hazardous activities” and therefore must “adopt legislative and other measures to prevent such violations, and to investigate, punish and provide reparation when they occur.”²⁸⁵ It also stated that given the relationship between human rights and the environment, among other things, States must: (a) regulate this matter to prevent significant damage to the environment; (b) supervise and monitor certain activities to protect human rights from actions of public authorities and private actors; and (c) require and approve environmental impact assessments;²⁸⁶
 - b. the IACHR resolved that “States must ensure that both public and private entities reduce their GHG [greenhouse gas] emissions”;²⁸⁷ and
 - c. the UN Human Rights Committee also clarified that States must preserve the environment and protect it from the harm “caused by public and private actors.”²⁸⁸ This includes taking appropriate legislative and other measures to ensure that all activities taking place in whole or in part within their territory or jurisdiction are consistent with the right to life.²⁸⁹

²⁸³ “General comment No. 26 (2023) – On children’s rights and the environment, with a special focus on climate change”, CRC/C/GC/26, *UN Committee on the Rights of the Child*, 22 August 2023 (“**General Comment No. 26**”), paragraph 8, Annex 321.

²⁸⁴ See General Comment No. 26, paragraph 65, Annex 321.

²⁸⁵ *Case of the Buzos Miskitos (Lemoth Morris et al. v Honduras)*. Judgment of August 31, 2021. Series C No. 432, paragraph 48, Annex 254. See also IACtHR 2017 Advisory Opinion, paragraphs 118-119, Annex 235.

²⁸⁶ See IACtHR 2017 Advisory Opinion, paragraphs 146-170, Annex 235.

²⁸⁷ IACHR Climate Emergency Resolution, paragraph 12, Annex 97.

²⁸⁸ “General Comment No. 36 (2019) – Article 6: Right to Life”, CCPR/C/GC/36, *UN Human Rights Committee*, 3 September 2019, paragraph 62, Annex 311.

²⁸⁹ See “General Comment No. 36 (2019) – Article 6: Right to Life”, CCPR/C/GC/36, *UN Human Rights Committee*, 3 September 2019, paragraph 22, Annex 311.

156. The obligation to protect and preserve the environment within a State's own jurisdiction is also evidenced by the general practice of States and is accepted as law:
- a. in 1948, UN Member States recognised in the Universal Declaration of Human Rights that they should ensure the right to a standard of living that is adequate for health and well-being;²⁹⁰
 - b. in 1968, UN Member States unanimously adopted a resolution recognising the “continuing and accelerating impairment of the quality of the human environment caused by factors such as air and water pollution . . . on the condition of man, his physical, mental and social well-being, his dignity and his enjoyment of basic rights”;²⁹¹
 - c. in 1972, as mentioned above, 113 States adopted principles in the Stockholm Declaration in which they acknowledged that “[hum]an[s] ha[ve] the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being” and that “[t]he discharge of toxic substances . . . must be halted in order to ensure that serious or irreversible damage is not inflicted upon ecosystems.”²⁹² As such “States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea” and States should plan policies and cooperate to protect and improve the environment;²⁹³
 - d. in 1989, 29 European States party to the World Health Organization adopted the European Charter on Environment and Health, recognising that “every individual is entitled to an environment conducive to the highest attainable level of health and wellbeing” and therefore “[e]very government and public

²⁹⁰ See UN General Assembly Resolution 217(III) (1948), A/RES/217(III), 10 December 1948 (“**Universal Declaration of Human Rights**”), Article 25, Annex 100.

²⁹¹ UN General Assembly Resolution 2398(XXIII) (1968), A/RES/2398(XXIII), 3 December 1968, Annex 101.

²⁹² Stockholm Declaration, Principles 1 and 6, Annex 153.

²⁹³ Stockholm Declaration, Principle 7, Annex 153. See also, e.g., Stockholm Declaration, Principles 9-26, Annex 153.

authority has the responsibility to protect the environment and to promote human health within the area under its jurisdiction”;²⁹⁴

- e. in 1992, during the UN Conference on Environment and Development, 179 States adopted principles in the Rio Declaration in which they acknowledged that human beings are “entitled to a healthy and productive life in harmony with nature” and that States should “reduce and eliminate unsustainable patterns of production and consumption” and “shall enact effective environmental legislation”;²⁹⁵
- f. in 1994, a UN Special Rapporteur noted that there was “universal acceptance of the environmental rights recogni[s]ed at national, regional and international levels.”²⁹⁶ As of 2021, more than 150 States have recognised and operationalised the human right to a healthy environment in their constitutions, legislation and enforcement in local courts.²⁹⁷ For example, the Constitution of India provides that the “State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country,”²⁹⁸ the Federal Constitution of the Swiss Confederation declares that the “Confederation shall legislate on the protection of the population and its natural environment against damage or nuisance,”²⁹⁹ the Constitution of Kenya states that every person has the right “to have the environment protected for the benefit of present and future generations through legislative

²⁹⁴ European Charter on Environment and Health, 8 December 1989, WHO/EURO:1989-3845-43604-61265, World Health Organization Regional Office for Europe, page 2, paragraphs 1 and 5, Annex 42.

²⁹⁵ Rio Declaration, Principles 1, 8 and 11, Annex 157.

²⁹⁶ Final report prepared by Mrs Fatma Zohra Ksentini, Special Rapporteur, Human Rights and Environment, E/CN.4/Sub.2/1994/9, 6 July 1994, paragraph 240, Annex 408.

²⁹⁷ See J. H. Knox, *Human Rights*, in THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW, ed. L. Rajamani and J. Peel (Oxford University Press, 2021), pages 786-787, Annex 480. In 2019, a Special Rapporteur reported that “[t]here are 100 States whose constitutions explicitly incorporate the right to a healthy environment” and “more than 100 States where the right to a healthy environment is explicitly incorporated in national environmental legislation” (Report of the Special Rapporteur, Issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, A/HRC/40/55, 8 January 2019, paragraphs 13 and 15, Annex 423).

²⁹⁸ Constitution of India, 26 November 1949, as on May 2022, Article 48A, Annex 132.

²⁹⁹ Federal Constitution of the Swiss Confederation, 18 April 1999, as of 13 February 2022 (English translation), Article 74, Annex 142.

and other measures”³⁰⁰ and the Constitution of the Federative Republic of Brazil provides that “[e]veryone has the right to an ecologically balanced environment, which is an asset of common use and essential to a healthy quality of life, and both government and community shall have the duty to defend and preserve it for present and future generations.”³⁰¹ Moreover, in 2021, the German Federal Constitutional Court decided that constitutionally guaranteed human rights, namely the protection of life and physical integrity, oblige Germany to take climate action.³⁰² In 2022, the Australian Land Court of Queensland decided that, given there is a causal link between climate change and the enjoyment of human rights (including the right to life, protection of children, culture of First Nations People and the enjoyment by certain groups of rights without discrimination), activities which have negative impacts on climate change limit human rights;³⁰³

- g. in 2007, representatives of Small Island Developing States at the conference of the Alliance of Small Island States on Preparing for Bali and Beyond declared that climate change has “clear and immediate implications for the full

³⁰⁰ Constitution of Kenya, 28 August 2010, as amended from time to time and updated in 2019, Article 42, Annex 145.

³⁰¹ Constitution of the Federative Republic of Brazil, 22 September 1988, as amended from time to time through 2022 (English translation), Article 225, Annex 136. *See also* Constitution of the People's Republic of China, 4 December 1982, as amended from time to time and updated in 2019 (English translation), Article 26 (“[t]he state shall protect and improve living environments and the ecological environment, and prevent and control pollution and other public hazards”), Annex 135; Constitution of the Kingdom of Cambodia, 21 September 1993, as on October 2015 (English translation), Article 59 (“[t]he State shall preserve and protect the environment and the balance of natural resources, by organizing a precise planning for the management, especially of the land, water, atmosphere, air, geology, ecological system, mines, energy, petroleum and gas, rocks, sand, gems, forests and forest by-products, wildlife, fish and aquatic resources”), Annex 138; Constitution of the Republic of Uzbekistan, 8 December 1992, as amended in 2023 (English translation), Article 49 (“[t]he State, under the principle of sustainable development, shall implement measures to improve, restore and protect the environment, maintain ecological balance. The State shall take measures to protect and restore the ecological system, social and economic development of the Aral Sea region”), Annex 137; Constitution of the Republic of Poland, 2 April 1997, as amended from time to time and updated in 2009 (English translation), Article 74 (“[p]ublic authorities shall pursue policies ensuring the ecological security of current and future generations”), Annex 141; Constitution of the Republic of Moldova, 27 July 1994, as amended from time to time and updated in 2016 (English translation), Article 37 (“[e]very individual has the right to live in an ecologically safe and healthy environment”), Annex 139.

³⁰² *See Neubauer v Germany*, Order of the First Senate of 24 March 2021, German Federal Constitutional Court – 1 BvR 2656/18, Annex 333.

³⁰³ *See Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)*, [2022] QLC 21, Order of the Land Court of Queensland, 25 November 2022, paragraph 1352, Annex 336.

enjoyment of human rights,” including the rights to life, to an adequate standard of living and to the highest attainable standard of health;³⁰⁴

- h. by 2012, 10 Member States of the Association of Southeast Asian Nations recognised that “[e]very person has the right to an adequate standard of living for himself or herself and his or her family including . . . [t]he right to a safe, clean and sustainable environment”;³⁰⁵
- i. in 2022, 161 UN Member States voted in favour of a resolution recognising the right to a healthy environment, the promotion of which would require the “full implementation of the multilateral environmental agreements under the principles of international environmental law”;³⁰⁶ and
- j. States sitting on the UN Human Rights Council have progressively adopted resolutions acknowledging the effects of climate change, including global warming, on the enjoyment of human rights.³⁰⁷

³⁰⁴ Malé Declaration on the Human Dimension of Global Climate Change, 14 November 2007, Annex 160.

³⁰⁵ ASEAN Human Rights Declaration (AHRD) and the Phnom Penh Statement on the Adoption of the AHRD, 18 November 2012, Article 28(f), Annex 165.

³⁰⁶ UN General Assembly Resolution 76/300 (2022), A/RES/76/300, 1 August 2022, paragraphs 1 and 3, Annex 123. Some States noted that, despite their vote in favour of the resolution, they did not consider the right created a binding obligation on them (*see* UN General Assembly, Draft resolution A/77/L.58, 64th Plenary Meeting, A/77/PV.64, 29 March 2023, Annex 127). The UN Human Rights Council had previously adopted a decision recognising such right (*see* UN Human Rights Council Resolution 48/13 (2021), A/HRC/RES/48/13, 18 October 2021, paragraph 1, Annex 122).

³⁰⁷ *See, e.g.*, UN Human Rights Council Resolution 48/13 (2021), A/HRC/RES/48/13, 18 October 2021 (States recognise that “the impact of climate change, the unsustainable management and use of natural resources, the pollution of air, land and water, the unsound management of chemicals and waste, the resulting loss of biodiversity and the decline in services provided by ecosystems interfere with the enjoyment of a clean, healthy and sustainable environment, and that environmental damage has negative implications, both direct and indirect, for the effective enjoyment of all human rights”), Annex 122; UN Human Rights Council Resolution 46/7 (2021), A/HRC/RES/46/7, 23 March 2021 (States recognise “that sustainable development and the protection of the environment, including ecosystems, contribute to human well-being and to the enjoyment of human rights, including the rights to life, to the enjoyment of the highest attainable standard of physical and mental health, to an adequate standard of living, to adequate food, to safe drinking water and sanitation and to housing, and cultural rights”), Annex 121; UN Human Rights Council Resolution 45/30 (2020), A/HRC/RES/45/30, 7 October 2020 (States are “deeply concerned that the effects of environmental harm may undermine the full enjoyment of a vast range of the rights of the child, *inter alia* the right to life, the right to the enjoyment of the highest attainable standard of physical and mental health, the right to a standard of living adequate for the child’s physical, mental, spiritual, moral and social development, the right to education, the right of the child to be cared for by his or her parents, the right to rest and leisure, to engage in play and recreational activities, and the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child’s education or to be

157. This obligation is further supported by the most highly qualified publicists. For example, the drafters and endorsers of the Strasbourg Principles³⁰⁸ agree that States are under the obligation to ensure, for the benefit of present and future generations, as well as for the benefit of the environment itself, that everyone within their jurisdiction can enjoy safe, clean, healthy and sustainable environmental conditions adequate for their rights to health, well-being, dignity and culture.³⁰⁹
158. Therefore, international conventions, other international instruments and State practice show that States are obligated to protect and preserve the environment and the climate system within their own jurisdiction and control.
- (ii) This obligation is enforceable on a State-to-State level
159. The obligation to protect the environment within one's own jurisdiction and control is enforceable against a State by other States, even if they are themselves not injured by the States whose territory is impacted. This is because the obligation is an *erga omnes* obligation (i.e., an obligation in whose fulfilment all States have a legal interest) and an *erga omnes partes* obligation (i.e., an obligation in whose fulfilment all States parties to the same treaty have a legal interest).
160. The *erga omnes* and *erga omnes partes* character of the obligation is supported by case law. In *Gabčíkovo-Nagymaros*, the ICJ recognised “the great significance [of] respect for the environment, not only for States but also for the whole of mankind.”³¹⁰

harmful to the child's health or physical, mental, spiritual, moral or social development”), Annex 120; UN Human Rights Council Resolution 44/7 (2020), A/HRC/RES/44/7, 16 July 2020 (States emphasise that “the adverse effects of climate change have a range of implications, which can increase with greater global warming, both direct and indirect, for the effective enjoyment of human rights, including, inter alia, the right to life, the right to adequate food, the right to the enjoyment of the highest attainable standard of physical and mental health, the right to adequate housing, the right to self-determination, the rights to safe drinking water and sanitation, the right to work and the right to development, and recalling that in no case may a people be deprived of its own means of subsistence”), Annex 119; UN Human Rights Council Resolution 77/212 (2022), A/RES/77/212, 15 December 2022 (States express their deep concern about “the increasing challenges posed by global climate change and the loss of biodiversity, which have increased vulnerabilities and inequalities and have adversely affected development gains, in particular in developing countries”), Annex 125; UN Human Rights Council Resolution 7/23 (2008), A/HRC/7/23, 28 March 2008 (States are “[c]oncerned that climate change poses an immediate and far-reaching threat to people and communities around the world and has implications for the full enjoyment of human rights”), Annex 114.

³⁰⁸ See paragraph 143 above.

³⁰⁹ See Strasbourg Principles, Principle 35, Annex 489.

³¹⁰ *Gabčíkovo-Nagymaros*, paragraph 53, Annex 266, citing the *Nuclear Weapons Advisory Opinion*, paragraph 29, Annex 264.

In addition, late Judge Christopher Weeramantry, previous Vice-President of the ICJ, in his dissenting opinion in the *Nuclear Weapons Advisory Opinion*, recognised that the principles of environmental law “do not depend for their validity on treaty provisions,” that they are “part of customary international law” and the “*sine qua non* for human survival.”³¹¹ *Ad hoc* Judge Dugard, in his dissenting opinion in *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v Nicaragua)*, also acknowledged the specific obligation not to engage in wrongful deforestation that results in the release of carbon as an *erga omnes* obligation.³¹²

161. The ICJ has also allowed non-injured States to bring claims against States for breaches of international human rights and environmental obligations in treaties – thereby acknowledging that those obligations are *erga omnes partes*.³¹³
162. The *erga omnes* and *erga omnes partes* nature of this obligation is supported by teachings of highly qualified publicists. For example, Giorgio Gaja (previously Judge of the ICJ) stated that:

[a] State which has not been injured, but which may invoke the responsibility of the wrongdoing State, does so essentially in the exercise of a collective interest. It will rarely have suffered damage (moral or material) that affects it individually. This could be the case of a State which, even if its coastal and maritime areas are not affected by the consequences of pollution in the high seas, incurs expenses to combat pollution.³¹⁴

³¹¹ *Nuclear Weapons Advisory Opinion*, Dissenting Opinion of Judge Weeramantry, page 504, Annex 265.

³¹² *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v Nicaragua)*, *Compensation, Judgment of 2 February 2018*, I.C.J. Reports 2018, p. 15 (“**Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment**”), Dissenting opinion of Judge Ad Hoc Dugard, paragraph 35, Annex 280).

³¹³ *See Questions relating to the Obligation to Prosecute or Extradite (Belgium v Senegal)*, *Judgment of 20 July 2012*, I.C.J. Reports 2012, p. 422, paragraphs 68-69, Annex 275; *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)*, *Judgment of 31 March 2014*, I.C.J. Reports 2014, p. 226, Annex 276. *See also* “Draft Articles on Responsibility of States for Internationally Wrongful Acts”, Report of the Commission to the General Assembly on the work of its fifty-third session, Yearbook of the International Law Commission, A/CN.4/SER.A/2001/Add.1 (Part 2), *International Law Commission*, 10 August 2001 (“**Articles on Responsibility of States**”), Article 48, Annex 438. This is even though the Court in 1970 stated that human rights instruments themselves do not confer on State the capacity to protect victims irrespective of their nationality (*see Barcelona Traction, Light and Power Company, Limited, Judgment of 5 February 1970*, I.C.J. Reports 1970, p. 3, paragraph 91, Annex 259).

³¹⁴ G. Gaja, *States having an Interest in Compliance with the Obligation Breached*, in THE LAW OF INTERNATIONAL RESPONSIBILITY, ed. James Crawford et al. (Oxford University Press, 2010), page 961, Annex 465.

163. The ILC, a body of international law experts, developed articles on State responsibility, which state that:

[a]ny State other than an injured State is entitled to invoke the responsibility of another State . . . if: (a) the obligation breached is owed to a group of States including that State, and is established for the protection of a collective interest of the group; or (b) the obligation breached is owed to the international community as a whole.³¹⁵

164. The ILC's Commentary to the Articles on Responsibility of States clarifies that collective obligations "might concern, for example, the environment or security of a region (e.g. a regional nuclear-free zone treaty or a regional system for the protection of human rights)."³¹⁶ The ILC also noted that individual States may be specially affected by the breach of obligations owed to the international community as a whole "for example, a coastal State specially affected by pollution in breach of an obligation aimed at protection of the marine environment in the collective interest."³¹⁷
165. In addition, late Judge Crawford, in his then capacity as the ILC's Special Rapporteur on State responsibility, stated that the conservation of resources amounting to a common heritage of mankind could give rise to obligations *erga omnes partes*.³¹⁸
166. The obligation is also *erga omnes* and *erga omnes partes* by virtue of its direct link with fundamental human rights obligations. The ICJ has already stated that "the principles and rules concerning the basic rights of the human person" are obligations *erga omnes* because they are the "concern of all States."³¹⁹ As discussed above, there is a direct link between a healthy environment and the enjoyment of human rights. Therefore, the obligation to protect and preserve the environment, including the

³¹⁵ Articles on Responsibility of States, Article 48(1), Annex 438.

³¹⁶ "Draft Articles on Responsibility of States for Internationally Wrongful Acts with commentaries", Report of the Commission to the General Assembly on the work of its fifty-third session, Yearbook of the International Law Commission, A/CN.4/SER.A/2001/Add.1 (Part 2), *International Law Commission*, 10 August 2001 ("**Commentary to the Articles on Responsibility of States**"), page 126, paragraph 7, Annex 438 Bis.

³¹⁷ Commentary to the Articles on Responsibility of States, page 127, paragraph 10, Annex 438 Bis.

³¹⁸ See Third Report on State responsibility by James Crawford, Special Rapporteur, A/CN.4/507, *International Law Commission*, 15 March 2000, paragraph 92, Annex 436.

³¹⁹ *Barcelona Traction, Light and Power Company, Limited, Judgment of 5 February 1970, I.C.J. Reports 1970*, p. 3, paragraphs 33-34, Annex 259.

climate system, for present and future generations is an obligation that is enforceable on a State-to-State level, because it is the “concern of all States.”³²⁰

167. This is supported by State practice of bringing cases against each other before international and regional courts with allegations for breaches of human rights or providing for mechanisms for them to do so in treaties:
- a. The Gambia brought a case against Myanmar for violations of the Convention on the Prevention and Punishment of the Crime of Genocide to this Court and this Court allowed this case to proceed past preliminary objections phase;³²¹
 - b. Belgium brought a case against Senegal for violations of the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment and this Court decided on the merits of the case;³²² and
 - c. under the European Convention on Human Rights, 46 States agree that “any High Contracting Party may refer to the Court any alleged breach of the provisions of the Convention and the Protocols thereto by another High Contracting Party.”³²³ States have exercised this right in over 30 inter-State cases.³²⁴ This is so even if the State bringing the case is not a victim of an abuse of a human right.³²⁵
168. This is supported by the judicial decisions of this Court. This Court has recognised the “collective guarantee” of the entire inter-American system, which “translates into a general duty of protection required of States Parties to the American Convention and

³²⁰ *Ad hoc* Judge Dugard in his dissenting opinion in *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment* also suggested that environmental obligations (specifically the obligation not to engage in wrongful deforestation that results in the release of carbon) is an *erga omnes* obligation (see *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, Dissenting opinion of Judge Ad Hoc Dugard, paragraph 35, Annex 280).

³²¹ See *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (The Gambia v Myanmar)*, Preliminary Objections, Judgment of 22 July 2022, I.C.J. Reports 2022, p. 477, Annex 282.

³²² See *Questions relating to the Obligation to Prosecute or Extradite (Belgium v Senegal)*, Judgment of 20 July 2012, I.C.J. Reports 2012, p. 422, Annex 275.

³²³ Convention for the Protection of Human Rights and Fundamental Freedoms as amended by Protocol No. 15, 4 November 1950, European Treaty Series No. 5 (“**European Convention on Human Rights**”), Article 33, Annex 6.

³²⁴ See “Inter-State applications”, *European Court of Human Rights*, Annex 451.

³²⁵ See *Slovenia v Croatia* [2016] ECHR 54155, paragraph 67, Annex 297.

the OAS Charter, in order to ensure the effectiveness of those instruments, as a rule of an *erga omnes partes* nature.”³²⁶ This collective guarantee mechanism in the American Convention on Human Rights requires States to cooperate on ensuring the effectiveness of their human rights obligations.

169. Therefore, the obligation to protect and preserve the environment and other parts of the climate system within the jurisdiction and control of the State is an *erga omnes (partes)* obligation.

D. Obligation to protect and preserve the environment in areas beyond national control: States must protect and preserve the climate system and other parts of the environment in areas beyond national control

170. In analysing shared but differentiated responsibilities in the context of climate change, including from the perspective of human rights and intersectionality, States party to the American Convention on Human Rights should take into account the obligation of States to protect and preserve the climate system and other parts of the environment in areas beyond national control.
171. The extension of environmental protection obligations to areas beyond national control is established under long-standing international law. In the late 19th century, the tribunal in the *Fur Seals Arbitration* confirmed environmental protection obligations (namely, measures for the protection and preservation of migratory fur seals) in respect of the high seas “outside the jurisdictional limits of the respective Governments.”³²⁷ The finding is all the more notable for having been rendered by a tribunal whose members included high-ranking State officials: *inter alia*, a Justice of the US Supreme Court, a US Senator, the Minister of Justice of Canada, the Attorney General of Canada, an Ambassador of France and a Norwegian Minister of State.³²⁸

³²⁶ *Denunciation of the American Convention on Human Rights and the Charter of the Organization of American States and the consequences for State human rights obligations (interpretation and scope of articles 1, 2, 27, 29, 30, 31, 32, 33 a 65 and 78 of the American Convention on Human Rights and 3(l), 17, 45, 53, 106 and 143 of the Charter of the Organization of American States)*. Advisory Opinion OC-26/20 of November 9, 2020. Series A No. 26, paragraph 164, Annex 253.

³²⁷ *Award of the Arbitral Tribunal established under the Treaty signed in Washington, on the 29th of February 1892, Between United States and Her Majesty The Queen of United Kingdom of Great-Britain and Ireland (Relating to the Rights of Jurisdiction of United States in the Bering's Sea and the Preservation of Fur Seals, Award, 15 August 1893, RIAA Vol. XXVIII, p. 263 (“Fur Seals Arbitration”))*, page 270, Annex 299.

³²⁸ *See Fur Seals Arbitration*, page 268, Annex 299.

Within two decades, by 1911, the major sealing States had also enshrined these extraterritorial obligations to protect and promote the environment into treaty law.³²⁹

172. States' obligations to protect and preserve the environment to areas beyond national control is also widely confirmed by a multitude of more recent international law sources. For example:
- a. under the Vienna Convention for the Protection of the Ozone Layer, 197 States and the European Union commit to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.³³⁰ Together, the Vienna Convention for the Protection of the Ozone Layer and its associated Montreal Protocol on Substances that Deplete the Ozone Layer reflect the acceptance by 197 States and the European Union of a binding obligation to protect the ozone layer in the stratosphere, including beyond national jurisdiction.³³¹ Notably, these instruments were the first in the history of the UN to have achieved universal ratification, confirming decisively that protecting and preserving the environment beyond national jurisdiction reflects universally agreed principles of law;
 - b. under the United Nations Framework Convention on Climate Change, 197 States and the European Union agree that they "should protect the climate system for the benefit of present and future generations of humankind";³³²

³²⁹ See Convention between the United States and Other Powers Providing for the Preservation and Protection of Fur Seals, 7 July 1911, UK Treaty Series 1912 No. 2, Annex 4.

³³⁰ See Vienna Convention for the Protection of the Ozone Layer, Article 2(1), Annex 35.

³³¹ The Vienna Convention for the Protection of the Ozone Layer defines "ozone layer" expansively as "the layer of atmospheric ozone above the planetary boundary layer", without any limitation to areas immediately above territory within national jurisdiction (Vienna Convention for the Protection of the Ozone Layer, Article 1(1), Annex 35).

³³² United Nations Framework Convention on Climate Change, 9 May 1992, 1771 UNTS 107 ("UNFCCC") Article 3(1), Annex 50. States recognise also that "climate change and its adverse effects are a common concern of humankind" and that climate change may adversely affect natural ecosystems and humankind (e.g., due to shortages of food) (see, e.g., UNFCCC, Recitals, Annex 50; Paris Agreement, Recitals, Annex 93). In fact, the definition of "Adverse effects of climate change" in the UNFCCC acknowledges that climate change has significant deleterious effects on "human health and welfare" among other things (UNFCCC, Article 1(1), Annex 50). States also attest that they are aware of "the potentially harmful impact on human health and environment through modification of the ozone layer" (Vienna Convention for the Protection of the Ozone Layer, Recitals, Annex 35).

- c. through the Convention on Biological Diversity, 195 States and the European Union confirm that:

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their own jurisdiction or control do not cause damage to the environment . . . of areas beyond the limits of national jurisdiction.³³³

The Convention on Biological Diversity further establishes an obligation to cooperate in respect of areas beyond national jurisdiction for the conservation and sustainable use of biological diversity,³³⁴ and

- d. through UNCLOS, 168 States and the European Union also accept and enshrine expressly an obligation to protect and preserve the marine environment.³³⁵ This is widely accepted, including through judicial pronouncements, as applying both within and beyond the limits of national jurisdiction.³³⁶

173. Likewise, the obligation to protect and preserve the marine environment is universally reflected in a multitude of agreements relating to Antarctica. In the context of the suspension of sovereignty claims over the Antarctic, all obligations of environmental protection and preservation in Antarctica are properly understood as pertaining to areas beyond national jurisdiction.³³⁷ In this regard, key agreements include the

³³³ Convention on Biological Diversity, Article 3, Annex 51. *See also* Stockholm Declaration, Principle 21 (“States have, in accordance with the Charter of the United Nations and the principles of international law, . . . the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction”), Annex 153.

³³⁴ *See* Convention on Biological Diversity, Article 5, Annex 51.

³³⁵ *See* UNCLOS, Article 192, Annex 32.

³³⁶ *See, e.g., Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC), Advisory Opinion of 2 April 2015*, ITLOS Reports 2015, p. 4, paragraph 120, Annex 286. *See also South China Sea Arbitration (Philippines v China)*, Award, 12 July 2016, PCA Case No. 2013-19 (“**South China Sea Arbitration**”), paragraphs 940-941, Annex 305.

³³⁷ *See* R. Rayfuse, “Protecting Marine Biodiversity in Polar Areas Beyond National Jurisdiction”, *Review of European Community & International Environmental Law*, 2008, page 4 (“the suspension of sovereignty claims in the Antarctic currently renders the entire Antarctic area, including the Southern Ocean south of the Arctic Convergence, one beyond national jurisdiction, albeit one governed by a special regime established by various agreements and bodies comprising the Antarctic Treaty System”), Annex 461.

Protocol on Environmental Protection to the Antarctic Treaty, which records the 33 Parties' recognition of "the need to enhance the protection of the Antarctic environment and dependent and associated ecosystems" and "that the development of a comprehensive regime for the protection of the Antarctic environment and dependent and associated ecosystems is in the interest of mankind as a whole."³³⁸ The Protocol further records the 33 Parties' agreement that "[t]he protection of the Antarctic environment and dependent and associated ecosystems and the intrinsic value of Antarctica . . . shall be fundamental considerations in the planning and conduct of all activities in the Antarctic Treaty area"³³⁹ as well as agreement that, *inter alia*, activities in the Antarctic Treaty area shall be planned and conducted so as to "limit adverse impacts on the Antarctic environment and dependent and associated ecosystems"³⁴⁰ and to avoid "adverse effects on climate and weather patterns."³⁴¹ Additional relevant instruments in this regard include:

- a. the Antarctic Treaty, to which 15 States are party, establishing a consultation and recommendations procedure "in furtherance of the principles and objectives of the Treaty, including . . . preservation and conservation of living resources in Antarctica"³⁴² as well as banning nuclear explosions and the disposal of radioactive waste;³⁴³
- b. the Convention for the Conservation of Antarctic Seals, to which 16 States are party, which – recognising the "need for effective conservations measures," "that the stocks of Antarctic seals are an important living resource in the marine environment," "that any harvesting should be regulated so as not to exceed the levels of optimum sustainable yield" and enshrining the objective "to maintain a satisfactory balance within the ecological system" – establishes

³³⁸ Protocol on Environmental Protection to the Antarctic Treaty, 4 October 1991, 2941 UNTS 3 ("Antarctic Environmental Protocol"), Preamble, Annex 45.

³³⁹ Antarctic Environmental Protocol, Article 3(1), Annex 45.

³⁴⁰ Antarctic Environmental Protocol, Article 3(2)(a), Annex 45.

³⁴¹ Antarctic Environmental Protocol, Article 3(2)(b)(i), Annex 45.

³⁴² The Antarctic Treaty, 1 December 1959, 402 UNTS 71 ("Antarctic Treaty"), Article IX(1)(f), Annex 7.

³⁴³ Antarctic Treaty, Article V(1), Annex 7.

catch limits for various seal species and prohibits entirely the catch of others,³⁴⁴ and

- c. the Convention on the Conservation of Antarctic Marine Living Resources, to which 29 States are a party, “[r]ecognising the importance of safeguarding the environment and protecting the integrity of the ecosystem of the seas surrounding Antarctica” as well as “the urgency of ensuring the conservation of Antarctic marine living resources” and the “prime responsibilities of the Antarctic Treaty Consultative Parties for the protection and preservation of the Antarctic environment.”³⁴⁵

174. Widespread obligations of environmental protection and preservation with respect to areas beyond national control can also be found in regional treaties and instruments. To set out just a few, non-exhaustive examples:

- a. the Agreement on the Protection of the Marine Environment and the Coastal Area of the South-East Pacific, to which 5 States are party, establishes environmental protection and preservation obligations *inter alia* with respect to “the high seas up to a distance within which pollution of the high seas may affect” the area within the 200-mile maritime area of sovereignty and jurisdiction of the parties.³⁴⁶ Notably, each of those parties – the Republic of Chile, the Republic of Colombia, the Republic of Ecuador, the Republic of Panama and the Republic of Peru – is a party to the American Convention on Human Rights;
- b. the Agreement on Regional Cooperation in Combating Pollution of the South-East Pacific by Oil or Other Harmful Substances in Cases of Emergency, to which 5 States are party, establishes environmental protection and preservation obligations *inter alia* with respect to “the high seas up to a distance within which discharged pollutants constitute a danger” to waters within the 200-mile

³⁴⁴ Convention for the Conservation of Antarctic Seals, 1 June 1972, 1080 UNTS 175, Preamble, Annex 17.

³⁴⁵ Convention on the Conservation of Antarctic Marine Living Resources, 20 May 1980, 1329 UNTS 47, Preamble, Annex 27.

³⁴⁶ Agreement on the Protection of the Marine Environment and the Coastal Area of the South-East Pacific, 12 November 1981, 1648 UNTS 3, Article 1, Annex 30.

maritime area of sovereignty and jurisdiction of the parties.³⁴⁷ Again, each of these parties – the Republic of Chile, the Republic of Colombia, the Republic of Ecuador, the Republic of Panama and the Republic of Peru – is a party to the American Convention on Human Rights;

- c. the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, to which 12 States are party, establishes environmental protection and preservation obligations *inter alia* with respect to the “areas of the high seas which are enclosed from all sides” by certain 200 nautical mile zones;³⁴⁸
- d. the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, to which 8 States are party, extends certain obligations of marine oil pollution preparedness and response to areas beyond the jurisdiction of any State to the extent consistent with international law;³⁴⁹ and
- e. the Agreement to Prevent Unregulated Fishing in the High Seas of the Central Arctic Ocean, to which 9 States and the European Union are party, pursues the express objective “to prevent unregulated fishing in the high seas portion of the central Arctic Ocean through the application of precautionary conservation and management measures as part of a long-term strategy to safeguard healthy marine ecosystems and to ensure the conservation and sustainable use of fish stocks.”³⁵⁰

175. Similar obligations with respect to areas beyond national jurisdiction can also be found in additional, non-regional treaties relating to fisheries. For example:

³⁴⁷ Agreement on Regional Cooperation in Combating Pollution of the South-East Pacific by Oil or Other Harmful Substances in Cases of Emergency, 22 July 1983, 1648 UNTS 35, Article 2, Annex 34.

³⁴⁸ Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, 24 November 1986, Australian Treaty Series No. 31 (“**Noumea Convention**”), Article 2, Annex 38.

³⁴⁹ See Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, 15 May 2013, US Treaty Series No. 16-325, Article 3(2), Annex 91.

³⁵⁰ Agreement to Prevent Unregulated Fishing in the High Seas of the Central Arctic Ocean, 3 October 2018, OJ L 73, Article 2, Annex 95. See also Agreement to Prevent Unregulated Fishing in the High Seas of the Central Arctic Ocean, 3 October 2018, OJ L 73, Preamble (“consistent with the precautionary approach, to prevent the start of unregulated fishing in the high seas portion of the central Arctic Ocean while keeping under regular review the need for additional conservation and management measures”), Annex 95.

- a. the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, to which 44 States and the European Union are party, confirms that “under international law as reflected in [UNCLOS], all States have the duty to take, or to cooperate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.”³⁵¹ Consistent with the obligation to provide assistance to developing countries, the Agreement further confirms that its Parties “shall cooperate . . . to provide assistance, including technical assistance, to Parties that are developing countries in order to assist them in fulfilling their obligations under this Agreement”,³⁵² and
- b. the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, to which 92 States and the European Union are party, enshrines as general principles that States fishing on the high seas, “[i]n order to conserve and manage straddling fish stocks and highly migratory fish stocks,”³⁵³ shall *inter*

³⁵¹ Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 24 November 1993, 2221 UNTS 91, Preamble, Annex 57. *See also* International Guidelines for the Management of Deep-sea Fisheries in the High Seas, SPRFMO-VI-SWG-INF01, *Food and Agriculture Organization of the United Nations*, 29 August 2008, Annex 411; UN General Assembly Resolution 59/25 (2005), 17 January 2005, Article 66 (“Calls upon States, either by themselves or through regional fisheries management organizations or arrangements, where these are competent to do so, to take action urgently, and consider on a case-by-case basis and on a scientific basis, including the application of the precautionary approach, the interim prohibition of destructive fishing practices, including bottom trawling that has adverse impacts on vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold water corals located beyond national jurisdiction, until such time as appropriate conservation and management measures have been adopted in accordance with international law”), Annex 111; UN General Assembly Resolution 61/105 (2007), 6 March 2007, Article 89 (“ . . . further invites the Food and Agriculture Organization of the United Nations . . . [to develop] standards and criteria for use by States and regional fisheries management organizations or arrangements in identifying vulnerable marine ecosystems and the impacts of fishing on such ecosystems, and establishing standards for the management of deep sea fisheries, such as through the development of an international plan of action”), Annex 112.

³⁵² Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 24 November 1993, 2221 UNTS 91, Article VII, Annex 57.

³⁵³ Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 August 1995, 2167 UNTS 3 (“**UN Fish Stocks Agreement**”), Article 5, Annex 63.

alia: “adopt measures to ensure long-term sustainability”;³⁵⁴ “ensure that such measures are based on the best scientific evidence available” and taking into account “the special requirements of developing States”;³⁵⁵ “apply the precautionary approach”; “minimize pollution”;³⁵⁶ “protect biodiversity in the marine environment”;³⁵⁷ and “implement and enforce conservation and management measures through effective monitoring, control and surveillance.”³⁵⁸ The Agreement further enshrines the precautionary approach, including that “States shall be more cautious when information is uncertain, unreliable or inadequate” and that “[t]he absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures.”³⁵⁹

176. Each of these obligations of environmental protection and preservation with respect to areas beyond national control should be understood in light of the recently concluded Draft Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction. Among other things, it recalls the UNCLOS provisions on the protection and preservation of the marine environment and espouses the objective of ensuring conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction for the present and in the long term.³⁶⁰
177. The obligation to protect and preserve the marine environment under UNCLOS is broad in scope. It extends beyond measures aimed strictly at controlling marine pollution to include measures necessary to protect and preserve fragile ecosystems.³⁶¹ It encompasses obligations to prevent, reduce and control pollution, whether direct or

³⁵⁴ UN Fish Stocks Agreement, Article 5(a), Annex 63.

³⁵⁵ UN Fish Stocks Agreement, Article 5(b), Annex 63.

³⁵⁶ UN Fish Stocks Agreement, Article 5(c), Annex 63.

³⁵⁷ UN Fish Stocks Agreement, Article 5(f), Annex 63.

³⁵⁸ UN Fish Stocks Agreement, Article 5(g), Annex 63.

³⁵⁹ UN Fish Stocks Agreement, Article 6(2), Annex 63.

³⁶⁰ See Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 19 June 2023, A/CONF.232/2023/4, Preamble and Article 2, Annex 96.

³⁶¹ See UNCLOS, Article 194(5), Annex 32; *Chagos Marine Protected Area Arbitration (Mauritius v United Kingdom)*, Award, 18 March 2015, PCA Case No. 2011-03, paragraphs 320, 538, Annex 304.

indirect,³⁶² and without any exclusion of new or previously unsuspected pollutants.³⁶³ It must therefore be understood to include obligations to prevent, reduce and control indirect pollution in the form of ocean acidification linked to greenhouse gas emissions. In its application both within and beyond the limits of national jurisdiction, such obligations under UNCLOS to protect and preserve the marine obligation “exten[d] both to ‘protection’ of the marine environment from future damage and ‘preservation’ in the sense of maintaining or improving its present condition.”³⁶⁴

178. As the Statute of the ICJ confirms and as also explained in paragraph 115, the above international conventions constitute a recognised and appropriate source of international law to which not only the ICJ but also this Court should refer.³⁶⁵ This Court should also have regard to international custom as evidence of State practice accepted as law, as well as judicial decisions and the teachings of the most highly qualified publicists.³⁶⁶ These sources further confirm the extension of States’ obligations to protect and preserve the environment to areas beyond national control. In 2014, for example, 10 States articulated a common vision for conserving the Sargasso Sea ecosystem – “the majority of which lies beyond national jurisdiction” – for the benefit of present and future generations and determined to collaborate to the extent possible in pursuing its conservation.³⁶⁷ Even more notably, the United States of America – a non-party to UNCLOS – has consistently recognised and acted in

³⁶² See UNCLOS Article 194, read with Article 1(1)(4) (“Pollution of the marine environment means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities”), Annex 32.

³⁶³ See Report of the United Nations Conference on the Human Environment, General Principles for Assessment and Control of Marine Pollution, A/CONF.48/14/Rev.1, 16 June 1972, page 73, Principle 14 (“The development and implementation of control should be sufficiently flexible to reflect increasing knowledge of the marine ecosystem, pollution effects, and improvements in technological means for pollution control and to take into account the fact that a number of new and hitherto unsuspected pollutants are bound to be brought to light”), Annex 405. See also Report on the Work of the United Nations Open-Ended Informal Consultative Process on Oceans and the Law of the Sea at its Fourteenth Meeting, A/68/159, 17 July 2013, paragraphs 9-10, Annex 415.

³⁶⁴ *South China Sea Arbitration*, paragraph 941, Annex 305.

³⁶⁵ See Statute of the ICJ, Article 38, Annex 3 Bis.

³⁶⁶ See paragraph 115 above and Statute of the ICJ, Article 38, Annex 3 Bis.

³⁶⁷ Hamilton Declaration on Collaboration for the Conservation of the Sargasso Sea, 11 March 2014, paragraphs 1-3, Annex 167.

accordance with environmental protection obligations *vis-à-vis* the deep seabed beyond national jurisdiction in its conduct in connection with proposed deep sea mining activities. Thus, the Deep Seabed Mining Regulations for Exploration Licenses adopted by the United States of America specifically restrain the National Oceanic and Atmospheric Administration (the “NOAA”) from issuing or transferring any exploration licence unless it has found that the proposed exploration “cannot reasonably be expected to result in a significant adverse effect on the quality of the environment.”³⁶⁸

179. In 2022, the NOAA of the US Government confirmed that “no at-sea activities may be conducted” pursuant NOAA deep seabed hard mineral exploration licences “without further environmental review and additional prior written authorization by NOAA.”³⁶⁹ In particular, the NOAA has repeatedly and consistently confirmed in 2016 and 2022 that:

- a. the NOAA will “conduct an environmental analysis . . . if and when NOAA authorizes . . . exploration activities pursuant to [the Deep Seabed Hard Mineral Resources Act] Licenses USA-1 and USA-4” granted to Lockheed Martin;³⁷⁰
- b. “[a]ny additional authorization by NOAA would occur only after a determination that proposed activities cannot reasonably be expected to result in a significant adverse effect on the quality of the environment”;³⁷¹

³⁶⁸ National Oceanic and Atmospheric Administration, Deep Seabed Mining Regulations for Exploration Licenses, 15 Code of Federal Regulations § 970.506, 15 September 1981, Annex 134.

³⁶⁹ National Oceanic and Atmospheric Administration, Deep Seabed Mining: Approval of Exploration License Extensions, 87 Fed. Reg. 52743, 29 August 2022 (“**Deep Seabed Mining: Approval of Exploration License Extensions**”), page 52744, Annex 149. *See also* National Oceanic and Atmospheric Administration, Deep Seabed Hard Minerals; Request for Extension of Exploration Licenses; Comments Request, 87 Fed. Reg. 15408, 18 March 2022, Annex 148.

³⁷⁰ *Center for Biological Diversity v Penny Pritzker et al.*, 33 U.S.C. § 1365 (2016), Joint Motion to Dismiss and Proposed Order, 30 November 2016, paragraph 6, Annex 327.

³⁷¹ Deep Seabed Mining: Approval of Exploration License Extensions, page 52744, Annex 149.

- c. “[d]ecision-making on seabed mining should be guided by the best available scientific information on the marine environment and ecosystem, and the risks posed by mining and associated operational practices”;³⁷²
 - d. “[a]gain, additional activities will be allowed only if NOAA determines that those activities cannot reasonably be expected to result in significant adverse effect on the quality of the environment”;³⁷³ and
 - e. the “NOAA recognizes the importance of a stable, science-based, internationally recognized regulatory framework for seabed mining that is harmonious with the U.S. seabed mining regulatory regime and ensures effective protection for the marine environment from harmful effects of seabed mining activities.”³⁷⁴
180. As to judicial decisions and the teachings of the most highly qualified publicists, in its *Nuclear Weapons Advisory Opinion*, the ICJ found that:
- the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn. The existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment . . . of areas beyond national control is now part of the corpus of international law relating to the environment.³⁷⁵
181. It follows *ipso facto* that the protection and preservation of the environment – not an abstraction and representing quality of life and human health, including for future generations – extends to protection and preservation of the climate system, including in areas beyond national control. Consistent with this, this Court has also affirmed that “States must ensure that their territory is not used in such a way as to cause significant damage to the environment . . . of areas beyond the limits of their territory.”³⁷⁶

³⁷² Deep Seabed Mining: Approval of Exploration License Extensions, page 52744, Annex 149.

³⁷³ Deep Seabed Mining: Approval of Exploration License Extensions, page 52744, Annex 149.

³⁷⁴ Deep Seabed Mining: Approval of Exploration License Extensions, page 52745, Annex 149.

³⁷⁵ *Nuclear Weapons Advisory Opinion*, paragraph 29, Annex 264. *See also Pulp Mills*, paragraph 193, Annex 272; *South China Sea Arbitration*, paragraph 941, Annex 305.

³⁷⁶ IACtHR 2017 Advisory Opinion, paragraph 104(f), Annex 235.

182. In addition, the drafters and endorsers of the Strasbourg Principles³⁷⁷ agree that States have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the areas beyond the limits of national jurisdiction.³⁷⁸

183. As set out above, international law confirms that the obligation to protect and preserve the environment, including the climate system, extends as an obligation to areas beyond national control. States are obliged to protect and preserve the climate system and other parts of the environment in areas beyond national control. This obligation, as recognised as a matter of custom and treaty law, encompasses both the obligation to protect the environment beyond national control from future damage and the obligation to maintain and improve the condition of the environment beyond national control.

E. Obligation to mitigate and repair: States must mitigate and repair harm already caused or that will be caused by anthropogenic greenhouse gas emissions, whether or not they have initially caused such harm

184. In analysing shared but differentiated responsibilities in the context of climate change, including from the perspective of human rights and intersectionality, States party to the American Convention on Human Rights must consider the obligations of States to mitigate and repair harm. This includes the obligation to mitigate harm already caused or that will be caused by their anthropogenic greenhouse gas emissions to the climate system and other parts of the environment, as well as the obligation to repair harm to the environment whether or not the State in question caused the harm.

185. A State's obligation to mitigate and repair harm already caused or that will be caused by their anthropogenic greenhouse gas emissions to the climate system is well-established in treaty law. Mitigation refers to the obligation to address the cause of climate change by limiting and reducing anthropogenic greenhouse gas emissions by sources and by enhancing the removal of greenhouse gases by sinks and storage by reservoirs.³⁷⁹ It is complementary with the related objective of climate change

³⁷⁷ See paragraph 143 above.

³⁷⁸ See Strasbourg Principles, Principle 36, Annex 489.

³⁷⁹ See B. Mayer, *International Law Obligations on Climate Change Mitigation* (Oxford University Press, 2022), page 2, Annex 488.

adaptation, a major component of the obligation to repair, being the process of managing as far as possible the consequences of climate change.³⁸⁰

186. States have agreed on clear obligations of climate change mitigation and repair under international conventions such as the UNFCCC and the Paris Agreement. The UNFCCC, for example, requires all parties to formulate, implement, publish and regularly update programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks.³⁸¹ Consistent with the principle of common but differentiated responsibilities and respective capabilities, the UNFCCC further imposes obligations on Annex I parties to adopt national policies and take corresponding measures on climate change mitigation.³⁸² The UNFCCC also enshrines the obligation to repair climate change harm, *inter alia*, by requiring developed countries to assist developing countries that are particularly vulnerable to climate change adverse effects in meeting costs of adaptation, including by providing financing and promoting and facilitating technology transfer.³⁸³
187. The Paris Agreement enshrines and develops mitigation obligations further by systematising processes for submitting and implementing greenhouse gas mitigation commitments by States.³⁸⁴ By establishing clear obligations to support developing countries,³⁸⁵ the Paris Agreement further confirms the obligation to repair climate change harm whether or not a State has caused such harm. These obligations have been further enhanced through the Kyoto Protocol processes for imposing quantified emission limitation and reduction commitments.³⁸⁶ These treaty obligations confirm the recognition among States, including developed States, of an obligation to foster climate resilience and make finance flows consistent with a pathway towards low

³⁸⁰ For example, through facilitated migration, bushfire management and other disaster risk management. B. Mayer, *International Law Obligations on Climate Change Mitigation*, (Oxford University Press, 2022), pages 2-3, Annex 488.

³⁸¹ See UNFCCC, Article 4(1)(b), Annex 50.

³⁸² See UNFCCC, Article 4(2)(a), Annex 50.

³⁸³ See UNFCCC, Articles 4(3)-(5), Annex 50.

³⁸⁴ See Paris Agreement, Articles 4 and 5, Annex 93.

³⁸⁵ See Paris Agreement, Article 4(5), Annex 93.

³⁸⁶ See Kyoto Protocol to The United Nations Framework Convention on Climate Change, 11 December 1997, FCCC/CP/1997/L.7/Add.1 (“**Kyoto Protocol**”), Article 3, Annex 69.

greenhouse gas emissions and climate-resilient development, specifically for developing countries and small island States.³⁸⁷

188. The Paris Agreement and the Kyoto Protocol are mere starting points. They are not by themselves sufficient to discharge States' obligations in respect of climate change.
189. In fulfilment of their obligations to mitigate and repair climate change harm, including through adaptation, States have agreed to operationalise these obligations through the establishment of funds and facilities. For example, the UNFCCC Parties have established an Adaptation Fund to finance concrete adaptation projects and programmes in developing countries that are particularly vulnerable to the adverse effects of climate change.³⁸⁸ In 2022, 197 States also reached a historic unanimous agreement on the establishment of a loss and damage fund dedicated to assist developing nations most severely affected by climate change.³⁸⁹
190. UN General Assembly Resolution 77/165 acknowledges that “adaptation to climate change is an urgent priority and a global challenge faced by all countries, in particular developing countries, especially those that are particularly vulnerable to the adverse effects of climate change.”³⁹⁰ In this context, it confirms “the importance of the adequacy and predictability of adaptation finance and of the Adaptation Fund and that the provision of scaled-up financial resources should be aimed at achieving a balance between adaptation and mitigation.”³⁹¹ Such treaty commitments and State practice reflect widespread recognition of the obligation to mitigate and repair climate change

³⁸⁷ See, e.g., UNFCCC, Article 4(4), Annex 50; Paris Agreement, Articles 2(1)(b) and (c), 9, 10, Annex 93.

³⁸⁸ See Funding under the Kyoto Protocol, Decision 10/CP.7, Report of the Conference of the Parties on Its Seventh Session, held at Marrakesh from 29 October to 10 November 2001, Addendum, Part Two: Action taken by the Conference of the Parties, FCCC/CP/2001/13/Add.1, 21 January 2002, Annex 158. See also **Section VI.I** below.

³⁸⁹ See Funding arrangements for responding to loss and damage associated with the adverse effects of climate change, including a focus on addressing loss and damage, Decision 2/CP.27, Report of the Conference of the Parties on its twenty-seventh session, held in Sharm el-Sheikh from 6 to 20 November 2022, Addendum, Part two: Action taken by the Conference of the Parties at its twenty-seventh session, FCCC/CP/2022/10/Add.1, 17 March 2023, paragraphs 1 and 13, Annex 190.

³⁹⁰ UN General Assembly Resolution 77/165 (2022), A/RES/77/165, 14 December 2022 (“**UN General Assembly Resolution 77/165**”), Preamble, Annex 124. See also UN General Assembly Resolution 77/165, paragraph 10, Annex 124.

³⁹¹ UN General Assembly Resolution 77/165, Preamble, Annex 124.

harm for other States and present and future generations, including to repair harm whether or not they have caused such harm.

191. Obligations of climate change mitigation are strongly related to the general obligation under customary international law not to cause transboundary harm, which has been discussed above.³⁹² The obligation to prevent transboundary harm to other States compels States as a matter of law to reduce, prevent and control foreseeable climate change harm to other States. Insofar as States have themselves caused or contributed to climate change harm in breach of international law, the obligation to mitigate (for example, through carbon sinks) and to repair harm applies as a matter of customary international law as part of the duty to make full reparation for injury caused by wrongful acts, as discussed in further detail below.³⁹³
192. As set out in **Section VI.C**, climate change-related harm implicates human rights including the rights to life, adequate food, health, housing, self-determination, access to water and privacy.³⁹⁴ A State's obligations to mitigate and repair climate change harm, whether or not caused by that State, therefore follow from existing obligations of States under international human rights law. Such obligations apply irrespective of whether the State itself has directly caused the environmental harm impacting free and full exercise of human rights. Consistent with intersectional approaches, States are obliged in fulfilling their human rights obligations to have particular regard to communities who will be most acutely impacted, including those already in vulnerable situations owing to poverty, gender, age, indigenous or minority status and disability.³⁹⁵

³⁹² See Section VI.B above. Reflecting the universal acceptance of these obligations, as well as the obligation to protect and preserve the environment, States have already moved rapidly to phase out ozone-depleting substances, including through the universally ratified Vienna Convention for the Protection of the Ozone Layer, Annex 35 and the Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, 1522 UNTS 3, Annex 39. See also paragraph 172.a) above.

³⁹³ See Articles on Responsibility of States, Article 31, Annex 438; Section VI.H below.

³⁹⁴ See UN Human Rights Council Resolution 10/4, Preamble, Annex 115. See also IACtHR 2017 Advisory Opinion, paragraphs 123-124, Annex 235.

³⁹⁵ See UN Human Rights Council Resolution 10/4, Preamble, Annex 115. See also Glasgow Climate Pact, Decision 1/CP.26, Report of the Conference of the Parties on its twenty-sixth session, held in Glasgow from 31 October to 13 November 2021, Addendum, Action taken by the Conference of the Parties at its twenty-sixth session, FCCC/CP/2021/12/Add.1, 8 March 2022, Annex 185.

193. International human rights law jurisprudence confirms that failing to mitigate and repair climate change harm, whether or not caused by the State, violates international human rights law. In *Billy v Australia*, the UN Human Rights Committee determined that Australia’s climate change inaction violated the rights to privacy, family and home, as well as the right of indigenous peoples to enjoy their traditional territories and continue to enjoy the natural resources traditionally used for their cultural identity. Australia’s violations were grounded in its failure to take timely and adequate repair and adaptation action (namely, delays in the construction of seawalls to address coastal erosion and storm surge impacts),³⁹⁶ without any need to establish any separate connection between the State and the environmental harm caused.

194. Human rights jurisprudence further recognises that failure to take timely and adequate repair and adaptation action in respect of climate change harm can violate the right to life. Thus, in its Views adopted in *Teitiota v New Zealand*, the UN Human Rights Committee confirmed:

[t]he Committee is of the view that without robust national and international efforts, the effects of climate change in receiving States may expose individuals to a violation of their rights under articles 6 or 7 of the Covenant.³⁹⁷

195. In *Billy v Australia*, in his individual opinion, Ambassador Duncan Muhumuza Laki of the UN Human Rights Committee held that:

[t]he authors have ably informed the Committee that the current state of affairs and existence in the Torres Strait islands is under imminent threat owing to ongoing climate change and therefore the State party should take immediate adaptive precautionary measures to thwart climate changes and preserve the lives of the islanders, including their health and livelihood. Any further delays or non-action by the

³⁹⁶ See *Billy v Australia*, paragraph 8.12 (“by failing to discharge its positive obligation to implement adequate adaptation measures to protect the authors’ home, private life and family, the State party violated the authors’ rights under article 17 of the Covenant”) and paragraph 8.14 (“State party’s failure to adopt timely adequate adaptation measures to protect the authors’ collective ability to maintain their traditional way of life, to transmit to their children and future generations their culture and traditions and use of land and sea resources discloses a violation of the State party’s positive obligation to protect the authors’ right to enjoy their minority culture”), Annex 314.

³⁹⁷ “Views adopted by the Committee under article 5 (4) of the Optional Protocol, concerning communication No. 2728/2016, *Teitiota v New Zealand*”, CCPR/C/127/D/2728/2016, *UN Human Rights Committee*, 23 September 2020, paragraph 9.11, Annex 312.

State party will continue to put the lives of the citizens at risk, which is a blatant violation of article 6 (1) of the Covenant.³⁹⁸

196. The Supreme Court of the Republic of Colombia has notably ordered the increase of actions to mitigate deforestation on the basis *inter alia* that:

[t]he increasing deterioration of the environment is a serious attack on current and future life and on other fundamental rights; it gradually depletes life and all its related rights. The inability to exercise the fundamental rights to water, to breathe pure air, and to enjoy a healthy environment is making living subjects of rights sick. It also increases the lack of fresh water and decreases the ability to enjoy a dignified life.

(Translated from Spanish original.)³⁹⁹

197. In Belgium, a decision from the Tribunal of First Instance of Brussels further confirms that the State, through its climate change inaction, violated human rights:

[i]n pursuing their climate policy, the defendants infringe the fundamental rights of the plaintiffs, and more specifically Articles 2 and 8 of the ECHR, by failing to take all necessary measures to prevent the effects of climate change on the plaintiffs' life and privacy.

(Translated from French original.)⁴⁰⁰

198. In assessing the particular content of obligations to mitigate climate change harm, developed States are required in practice to do more in line with the established principle of common but differentiated responsibilities.⁴⁰¹ Along the same lines, the duty of States to comply with their obligations under the American Convention on

³⁹⁸ Annex I, Individual opinion of Committee member Duncan Laki Muhumuza (dissenting), *Billy v Australia*, paragraph 12, Annex 314.

³⁹⁹ *Future Generations v Ministry of Environment and Others*, Sentence 4360-2018 of the Supreme Court of Justice of Colombia of 5 April 2018, pages 13-14 and 48 (in original Spanish, “El deterioro creciente del medio ambiente es [sic] atentado grave para la vida actual y venidera y de todos los otros derechos fundamentales; además, agota paulatinamente la vida y todos los derechos conexos con ella. La imposibilidad de ejercer los derechos fundamentales al agua, a respirar aire puro y disfrutar un ambiente sano enferma diariamente a los sujetos de derecho vivientes, aumenta la carencia de agua dulce y disminuye las expectativas de vida digna”), Annex 329.

⁴⁰⁰ *Klimaatzaak ASBL v Belgium*, Case 2015/4585/A, French-Speaking Tribunal of First Instance of Brussels, 17 June 2021, page 83 (in French original: “dans la poursuite de leur politique climatique, les parties défenderesses portent atteinte aux droits fondamentaux des parties demanderesses, et plus précisément aux articles 2 et 8 de la CEDH, en s’abstenant de prendre toutes les mesures nécessaires pour prévenir les effets du changement climatique attentatoire à la vie et la vie privée des parties demanderesses”), Annex 335.

⁴⁰¹ See, e.g., paragraph 129 above.

Human Rights with due diligence requires, in practice, that all States, in particular developed States, take “all appropriate measures” to ensure the free and full exercise of all relevant human rights.⁴⁰² The same applies with respect of the duties of States to exercise due diligence in respect of their obligations under the UNFCCC, the Paris Agreement, UNCLOS and the duty to protect and preserve the marine environment. Taken together, the principle of common but differentiated responsibilities and the due diligence standard require States to set their national climate mitigation targets at the level of their highest possible ambition and to pursue effective mitigation measures with the aim of achieving those targets. The same applies with equal force to adaptation measures, which must be set at the level of each State’s highest possible ambition.⁴⁰³

F. Obligation to cooperate: States must cooperate to protect and preserve the climate system and other parts of the environment

199. In analysing shared but differentiated responsibilities in the context of climate change, including from the perspective of human rights and intersectionality, States party to the American Convention on Human Rights must consider the obligation to cooperate with each other to ensure protection of the climate system and other parts of the environment. This Court itself held in the IACtHR 2017 Advisory Opinion that “States have the obligation to cooperate, in good faith, to ensure protection against significant transboundary harm to the environment”⁴⁰⁴ which it described as “an important element in the evaluation of [States’] obligation to respect and ensure the human rights of the persons outside its territory who may be affected by activities executed within its territory.”⁴⁰⁵ It described the duty as “an obligation between States”⁴⁰⁶ and part of customary international law.⁴⁰⁷
200. As this Court observed in the IACtHR 2017 Advisory Opinion:

⁴⁰² IACtHR 2017 Advisory Opinion, paragraphs 123-124, Annex 235.

⁴⁰³ See Annex II, Individual opinion of Committee member Gentian Zyberi (concurring), *Billy v Australia*, paragraph 3, Annex 314.

⁴⁰⁴ IACtHR 2017 Advisory Opinion, paragraph 244(7), Annex 235.

⁴⁰⁵ IACtHR 2017 Advisory Opinion, paragraph 182, Annex 235.

⁴⁰⁶ IACtHR 2017 Advisory Opinion, paragraph 186, Annex 235.

⁴⁰⁷ See IACtHR 2017 Advisory Opinion, paragraph 184, Annex 235.

[a]ccording to [the ICJ] the duty to cooperate is derived from the principle of good faith in international relations, is essential for protection of the environment, and allows States jointly to manage and prevent risks of environmental damage that could result from projects undertaken by one of the parties.⁴⁰⁸

201. The ICJ has previously identified the obligation to cooperate in at least the following cases:

a. the *Nuclear Tests* case:

[o]ne of the basic principles governing the creation and performance of legal obligations, whatever their source, is the principle of good faith. Trust and confidence are inherent in international co-operation, in particular in an age when this co-operation in many fields is becoming increasingly essential . . . Thus interested States may take cognizance of unilateral declarations and place confidence in them, and are entitled to require that the obligation thus created be respected.⁴⁰⁹

b. the *Nuclear Weapons Advisory Opinion*:

[t]he obligation expressed in Article VI of the Treaty on the Non Proliferation of Nuclear Weapons includes its fulfilment in accordance with the basic principle of good faith. This basic principle is set forth in Article 2, paragraph 2, of the Charter. It was reflected in the Declaration on Friendly Relations between States (resolution 2625 (XXV) of 24 October 1970) and in the Final Act of the Helsinki Conference of 1 August 1975. It is also embodied in Article 26 of the Vienna Convention on the Law of Treaties of 23 May 1969, according to which "[e]very treaty in force is binding upon the parties to it and must be performed by them in good faith."⁴¹⁰

c. the *Pulp Mills* case:

[t]he Court observes that it is by co-operating that the States concerned can jointly manage the risks of damage to the environment that might be created by the plans initiated by one or other of them, so as to prevent the damage in question, through the performance of both the

⁴⁰⁸ IACtHR 2017 Advisory Opinion, paragraph 184, Annex 235.

⁴⁰⁹ *Nuclear Tests (Australia v France)*, Judgment of 20 December 1974, I.C.J. Reports 1974, p. 253, paragraph 46, Annex 260.

⁴¹⁰ *Nuclear Weapons Advisory Opinion*, paragraph 102, Annex 264.

procedural and the substantive obligations laid down by the 1975 Statute.

...

The Court notes, moreover, that the 1975 Statute is perfectly in keeping with the requirements of international law on the subject, since the mechanism for co-operation between States is governed by the principle of good faith.⁴¹¹

d. the *Gabčíkovo-Nagymaros* case:

[t]he Danube has always played a vital part in the commercial and economic development of its riparian States, and has underlined and reinforced their interdependence, making international co-operation essential . . . The Court is mindful that, in the field of environmental protection, vigilance and prevention are required on account 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.⁴¹²

202. The duty to cooperate has also been recognised by ITLOS in:

a. the *Southern Bluefin Tuna Cases*:

States Parties to the Convention have the duty to cooperate directly or through appropriate international organizations with a view to ensuring conservation and promoting the objective of optimum utilization of highly migratory species.⁴¹³

b. the *MOX Plant Case*:

the duty to cooperate is a fundamental principle in the prevention of pollution of the marine environment under . . . general international law.⁴¹⁴

⁴¹¹ *Pulp Mills*, paragraphs 77 and 145, Annex 272.

⁴¹² *Case concerning the Gabčíkovo-Nagymaros Project (Hungary v Slovakia)*, Judgment of 25 September 1997, I.C.J. Reports 1997, p. 7 (“**Gabčíkovo-Nagymaros**”), paragraphs 17 and 140, Annex 266.

⁴¹³ *Southern Bluefin Tuna Cases (New Zealand/Japan; Australia /Japan) Provisional Measures, Order of 27 August 1999*, ITLOS Reports 1999, p. 280, page 293, Annex 283.

⁴¹⁴ *The MOX Plant Case (Ireland/The United Kingdom) Provisional Measures, Order of 3 December 2001*, ITLOS Reports 2001, p. 95, paragraph 82, Annex 284.

203. The duty to cooperate is also recognised in numerous treaties. As this Court has observed:

- a. the American Convention on Human Rights establishes the obligation of international cooperation with a view to develop and protect economic, social and cultural rights;⁴¹⁵ and
- b. several articles of the Protocol of San Salvador also refer to cooperation between States.⁴¹⁶

204. It is also found in the following further treaties:

- a. the UN Charter:

[t]he [p]urposes of the United Nations are: . . . [t]o achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion. . .⁴¹⁷

As explained by the UN High Commissioner for Human Rights:

[t]he UN Charter . . . and other . . . instruments impose upon States the duty to cooperate to ensure the realization of all human rights. Climate change is a human rights threat with causes and consequences that cross borders; thus, it requires a global response, underpinned by international solidarity. States should share resources, knowledge and technology in order to address climate change. International assistance for climate change

⁴¹⁵ See American Convention on Human Rights, Article 26 (“The States Parties undertake to adopt measures, both internally and through international cooperation, especially those of an economic and technical nature, with a view to achieving progressively, by legislation or other appropriate means, the full realization of the rights implicit in the economic, social, educational, scientific, and cultural standards set forth in the Charter of the Organization of American States as amended by the Protocol of Buenos Aires”), Annex 1. See also IACtHR 2017 Advisory Opinion, paragraph 181, Annex 235; OAS Charter, Articles 3(k)-(m) and 30, Annex 12.

⁴¹⁶ See IACtHR 2017 Advisory Opinion, paragraph 181, Annex 235, citing the Protocol of San Salvador, Preamble and Articles 1, 12 and 14, Annex 1 Bis.

⁴¹⁷ UN Charter, Article 1(3), Annex 3. See also UN Charter, Articles 13(1)(b), 55, 62(2), Annex 3.

mitigation and adaptation should be additional to existing . . . commitments.⁴¹⁸

b. the UNFCCC:

[t]he Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change.⁴¹⁹

c. the Paris Agreement:

Parties recognize the importance of support for and international cooperation on adaptation efforts and the importance of taking into account the needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change.⁴²⁰

d. the Kyoto Protocol:

[e]ach Party . . . in order to promote sustainable development, shall . . . cooperate with other such Parties to enhance the individual and combined effectiveness of their policies and measures adopted under this Article.⁴²¹

e. UNCLOS:

States shall cooperate on a global basis and, as appropriate, on a regional basis . . . for the protection and preservation of the marine environment.⁴²²

⁴¹⁸ “Understanding Human Rights and Climate Change”, Submission of the Office of the High Commissioner for Human Rights to the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, 2015, page 3, Annex 419. *See also* “General Comment No. 25 (2020) – On science and economic, social and cultural rights”, E/C.12/GC/25, *UN Committee on Economic, Social and Cultural Rights*, 30 April 2020, paragraph 77 (“The duty to cooperate internationally towards the fulfilment of all economic, social and cultural rights, established in article 2 of the Covenant and in articles 55 and 56 of the Charter of the United Nations”), Annex 319; ICESCR, Articles 15 (1)(b), (2), (3) and (4), Annex 10.

⁴¹⁹ UNFCCC, Article 3(5), Annex 50. *See also* UNFCCC, Articles 4(1)(c), 4(1)(e), 4(1)(g), Annex 50.

⁴²⁰ Paris Agreement, Article 7(6), Annex 93. *See also* Paris Agreement, Preamble, Articles 6, 8, 10, 11, 12 and 14, Annex 93.

⁴²¹ Kyoto Protocol, Article 2(1)(B), Annex 69.

⁴²² UNCLOS, Article 197, Annex 32. *See also* UNCLOS, Articles 192, 198-201, Annex 32.

- f. the UN Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa:

the Parties shall . . . promote cooperation among affected country Parties in the fields of environmental protection and the conservation of land and water resources, as they relate to desertification and drought.⁴²³

205. The obligation of States to cooperate (in environmental matters) has also been propounded by, among others:

- a. the UN General Assembly, which has urged States and international organisations to “treat climate change as a priority issue, to undertake and promote specific, co-operative action-oriented programme and research so as to increase understanding on all sources and causes of climate change” and to “collaborate in making every effort to prevent detrimental effects on climate”,⁴²⁴

- b. the Bridgetown Declaration:

[The Forum of Ministers]

Reiterate the importance of international and regional cooperation that would serve as a mechanism to mitigate the countries’ vulnerabilities, build resilience and maximize opportunities for sustainable development and contribute to the economic and environmental recovery of our Region.

Take note that the global response to the COVID-19 pandemic teaches us to work together to combat the common challenges to planet and humanity, recognising that coordinated and time-oriented efforts can strengthen sustainability and form the basis for the creation of adequate strategies for long-term benefit including sustainable environmental management and joint efforts between countries and organizations, oriented to such objectives, alike.

⁴²³ United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, 14 October 1994, 1954 UNTS 3 (“UNCCD”), Article 4(2)(d), Annex 61.

⁴²⁴ UN General Assembly Resolution 43/53, paragraphs 6 and 9, Annex 107.

Strengthen sustainability efforts and formulate strategies among countries and multilateral organizations for long term benefits, recognizing joint and coordinated efforts, including a global response to address common challenges that threaten ecosystems and humankind due to the COVID 19 pandemic.

Stress the need to promote on-going dialogues and exchange of information among Latin America and the Caribbean on best practices for natural resource management, including sustainable forest management, and the implementation of ecosystem- based approaches, among other relevant approaches that provide adaptation benefits, mitigation co-benefits and foster the conservation of biodiversity.⁴²⁵

- c. the Rio Declaration, adopted by 179 States:

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem"); Principle 27 ("States and people shall cooperate in good faith and in a spirit of partnership in the fulfilment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development.⁴²⁶

- d. the Joint Statement of Latin American and Caribbean Parliamentarians at COP27, signed by 14 States:

[w]e agree to promote the development of the financial structure that allows the raising of public and private funds, as well as international cooperation funds, for adaptation, mitigation and loss and damage projects, as well as working on urban and rural resilience, capable of facing the climate crisis.⁴²⁷

- e. the Declaration on China-Africa Cooperation on Combating Climate Change, made by Republic of China, 53 African countries and the African Union Commission:

⁴²⁵ Bridgetown Declaration, Report XXII Meeting of the Forum of Ministers of Environment of Latin America and the Caribbean, 1-2 February 2021, Annex III, UNEP/LAC-IG.XXII/7, 5 February 2021, paragraphs 28-31, Annex 183.

⁴²⁶ Rio Declaration, Principle 7, Annex 157.

⁴²⁷ Joint Statement of the Latin American and Caribbean Parliamentarians at COP 27, 10 November 2022, page 3, Annex 188.

[w]e decide to establish a China-Africa partnership of strategic cooperation of the new era for the fight against climate change.⁴²⁸

f. the Stockholm Declaration, adopted by 113 States:

[i]nternational matters concerning the protection and improvement of the environment should be handled in a cooperative spirit by all countries, big and small, on an equal footing. Cooperation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States.⁴²⁹

206. The obligation of cooperation has also been recognised by the Committee on Economic, Social and Cultural Rights in the context of economic, social and cultural rights under the ICESCR.⁴³⁰
207. The customary status of the obligation to cooperate is confirmed by the ILC in its Draft Guidelines on the Protection of the Atmosphere, under which States “have the obligation to cooperate . . . for the protection of the atmosphere from atmospheric pollution and . . . degradation.”⁴³¹
208. The existence of the obligation of cooperation in international law also finds support in scholarly works. For example, Benoit Mayer notes that “customary international law includes obligations of particular relevance to climate change such as . . . to cooperate on protecting global environmental resources.”⁴³² Dr Margaretha Wewerinke-Singh and Dr Curtis Doebbler note that “mitigation and adaptation

⁴²⁸ Declaration on China-Africa Cooperation on Combating Climate Change, 2 December 2021, paragraph 5, Annex 184.

⁴²⁹ Stockholm Declaration, Principle 24, Annex 153.

⁴³⁰ See ICESCR, Articles 15 (1)(b), (2), (3) and (4), Annex 10. See also “General Comment No. 25 (2020) – On science and economic, social and cultural rights”, E/C.12/GC/25, *UN Committee on Economic, Social and Cultural Rights*, 30 April 2020, paragraphs 77-84 (“The duty to cooperate internationally towards the fulfilment of all economic, social and cultural rights, established in article 2 of the Covenant and in articles 55 and 56 of the Charter of the United Nations”), Annex 319.

⁴³¹ “Draft Guidelines on the Protection of the Atmosphere with Commentaries”, A/76/10, *International Law Commission*, 2021, Guideline 8: International Cooperation, page 35, Annex 441.

⁴³² B. Mayer, *International Law Obligations on Climate Change Mitigation* (Oxford University Press, 2022), page 27, Annex 488.

measures must be supported by climate financing” and that “[a]ll States have obligations to cooperate with each other to realize the right to health based on customary international law.”⁴³³

209. Finally, it follows from States’ overarching obligation of cooperation in the environmental context that larger States responsible for the acceleration of climate change have a duty to finance adaption and mitigation efforts of small island States. The obligation to cooperate, in context, also implies an obligation to finance adaption and mitigation efforts of small island States.
210. This position finds support in various treaties and declarations, for instance:
- a. under the Rio Declaration, adopted by 179 States, States have decided that “[i]n view of the different contributions to global environmental degradation, States have common but differentiated responsibilities” and “[t]he developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.”⁴³⁴ Further, they recognise that “States should cooperate to promote a supportive and open international economic system” to enable “economic growth and sustainable development in all countries, to better address the problems of environmental degradation”;⁴³⁵
 - b. under the Paris Agreement, 195 States recognise “the importance of support for and international cooperation on adaptation efforts,” as well as “the importance of taking into account the needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change”;⁴³⁶ and
 - c. most prominently, the UNFCCC:

⁴³³ M. Wewerinke-Singh & C. Doebller, “Protecting Human Health from Climate Change: Legal Obligations and Avenues of Redress under International Law”, *International Journal of Environmental Research and Public Health*, 2022, pages 3 and 4, Annex 485.

⁴³⁴ Rio Declaration, Principle 7, Annex 157.

⁴³⁵ Rio Declaration, Principle 12, Annex 157.

⁴³⁶ Paris Agreement, Article 7(6), Annex 93.

[t]he Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

...

All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change.

...

All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods.

...

The developed country Parties and other developed Parties included in annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.⁴³⁷

⁴³⁷

UNFCCC, Articles 3(5), 4(1)(b), 4(1)(e) and 4(4), Annex 50. The UNFCCC also draws special attention of the Parties to needs of these developing countries, especially small island countries (*see* UNFCCC, Article 4(8) ("In the implementation of the commitments in this Article, the Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures, especially on (a) Small island countries; (b) Countries with low-lying coastal areas; (c) Countries with arid and semi-arid areas, forested areas and areas liable to forest decay; (d) Countries with areas prone to natural disaster (e) Countries with areas liable to drought and desertification; (f) Countries with areas of high urban atmospheric pollution; (g) Countries with areas with fragile ecosystems, including mountainous ecosystems; (h) Countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of

211. In fact, the obligation of States to cooperate includes a requirement on States to offer aid to other States to address climate change. Under the UN Charter, all UN Member States are required to “take joint and separate action in co-operation with the [UN]” to promote “higher standards of living,” “conditions of economic and social progress and development” and “solutions of international economic, social, health, and related problems.”⁴³⁸ Under the American Convention on Human Rights, States must “adopt measures, both internally and through international cooperation, especially those of an economic and technical nature, with a view to achieving progressively, by legislation or other appropriate means, the full realization of the rights implicit in the economic, social, educational, scientific, and cultural standards set forth in the Charter of the Organization of American States as amended by the Protocol of Buenos Aires.”⁴³⁹ This Court has noted that the American Convention on Human Rights acknowledges that not every State may have the necessary financial resources at its disposal to comply with the international commitment it makes and so requires States, among other things, to cooperate to progressively realise human rights.⁴⁴⁰ Other international human rights instruments also specify that States must cooperate to realise human rights progressively. For example:
- a. under the ICESCR, 171 States must “take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures”;⁴⁴¹ and

fossil fuels and associated energy-intensive products and (i) Land-locked and transit countries. Further, the Conference of Parties may take actions, as appropriate with respect to this paragraph”), Annex 50.

⁴³⁸ UN Charter, Articles 55-56, Annex 3.

⁴³⁹ American Convention on Human Rights, Article 26, Annex 1. *See also*, e.g., OAS Charter, Articles 3(k)-(m) and 30, Annex 2.

⁴⁴⁰ *See Case of Acevedo Buendía et al. v Peru. Reparations and Costs*. Judgment of July 1, 2009. Series C No. 198, paragraphs 101-103, Annex 250.

⁴⁴¹ ICESCR, Articles 2(1) and 22 Annex 10 (including the Committee on Economic, Social and Cultural Rights’ interpretation of the Articles: “General Comment No. 3 (1991) – On the Nature of States Parties’ Obligations”, E/1991/23, *UN Committee on Economic, Social and Cultural Rights*, 14 December 1990, paragraph 13, Annex 316; “General Comment No. 2 (1990) – On International technical assistance measures”, E/1990/23, *UN Committee on Economic, Social and Cultural Rights*, 2 February 1990, Annex 315).

- b. under the African Charter on Human and Peoples' Rights, 55 States must "individually or collectively . . . ensure the exercise of the right to development."⁴⁴²

G. Obligation to compensate: States must pay for loss and damage caused by their anthropogenic gas emissions

212. In analysing shared but differentiated responsibilities in the context of climate change, including from the perspective of human rights and intersectionality, States party to the American Convention on Human Rights should take account of the obligation to compensate for loss and damage caused by their own anthropogenic gas emissions.
213. This Section explains that States must pay compensation for loss and damage on a strict liability basis, i.e., both when their acts that caused damage are not otherwise wrongful under international law (*see* sub-section (i)) and also when those acts are otherwise wrongful under international law (*see* sub-section (ii)). Therefore, whether or not States' acts in emitting or permitting emissions of anthropogenic greenhouse gas were otherwise considered wrongful under international law at the time of those acts, except by virtue of the damage they caused, States must compensate for loss and damage arising from those acts.
- (i) States must pay compensation for such loss and damage on a strict liability basis
214. As further discussed in **Section VI.B**, States must prevent transboundary harm and act with due diligence. However, as the ILC explained, "even if the relevant State fully complies with its prevention obligations, under international law, accidents or other incidents may nonetheless occur and have transboundary consequences that cause harm and serious loss to other States and their nationals."⁴⁴³ It is therefore important that "those who suffer harm or loss as a result of such incidents involving hazardous activities are not left to carry those losses and are able to obtain prompt and adequate

⁴⁴² African Charter on Human and Peoples' Rights, Article 22(2), Annex 29.

⁴⁴³ "Commentaries on the Draft principles on the allocation of loss in the case of transboundary harm arising out of hazardous activities", Report of the International Law Commission Fifty-eighth session, Yearbook of the International Law Commission, A/CN.4/SER.A/2006/Add.1 (Part 2), *International Law Commission*, 2006 ("ILC Commentaries on the Draft Principles on the Allocation of Loss in the Case of Transboundary Harm arising out of Hazardous Activities"), page 59, Annex 440.

compensation.”⁴⁴⁴ That is why States also have a primary obligation to pay compensation for loss and damage caused by their anthropogenic gas emissions on the basis of strict liability.

215. Strict liability is not a novel concept of international law. For example, under customary international law, States are obligated to pay compensation when they expropriate property of non-nationals (even though the expropriation is, subject to certain conditions, lawful).
216. As noted at paragraph 211 above, the obligation to cooperate requires States to offer aid to other States to address climate change. The work of human rights bodies also supports the need for inter-State compensation for environmental harm. For example, the IACHR Climate Emergency Resolution noted that States establish mechanisms to fund losses and damages caused by climate change. It states that:

[w]ithin the framework of climate finance mechanisms, States should seek the generation of institutional frameworks that allow obtaining permanent funds for the financing of losses and damages caused by climate change.⁴⁴⁵

217. States that have historically contributed to anthropogenic gas emissions are obligated under international conventions to provide financial resources to developing States and climate change funds:
- a. under the UNFCCC, 197 States and the European Union agree that “the developed country Parties should take the lead in combating climate change and the adverse effects” and “developed country Parties and other developed Parties included in Annex III [to the UNFCCC] shall also assist the developing countries Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects”;⁴⁴⁶

⁴⁴⁴ ILC Commentaries on the Draft Principles on the Allocation of Loss in the Case of Transboundary Harm arising out of Hazardous Activities, page 59, Annex 440.

⁴⁴⁵ IACHR Climate Emergency Resolution, paragraph 52, Annex 97.

⁴⁴⁶ UNFCCC, Articles 3(1), 4(4), Annex 50.

- b. under the Kyoto Protocol, 192 States agree that developed country Parties “shall” provide new and additional resources to meet the agreed full costs incurred by developing country Parties in meeting climate change targets;⁴⁴⁷
 - c. under the Paris Agreement, 195 States agree that “[d]eveloped country Parties shall provide financial resources to assist developing country Parties” and “[o]ther Parties are encouraged to provide or continue to provide such support voluntarily.”⁴⁴⁸ States also agree to cooperate under the Warsaw International Mechanism for Loss and Damage recognising the importance of “averting, minimizing and addressing loss and damage associated with the adverse effects of climate change”;⁴⁴⁹ and
 - d. under the UNCCD, 192 States agree, given the central importance of financing, to ensure that adequate financial resources are available for programmes to combat desertification and mitigate the effects of drought. In particular, developed country States undertake to “mobilize substantial financial resources, including grants and concessional loans.”⁴⁵⁰
218. Funds and resources provided by developed countries must also be used to compensate those affected by the adverse impacts of climate change.⁴⁵¹
219. Further, this obligation to compensate is supported by international conventions under which States promise to compensate other States when they cause significant harm to the environment. For example:

⁴⁴⁷ Kyoto Protocol, Article 11, Annex 69.

⁴⁴⁸ Paris Agreement, Articles 9, Annex 93.

⁴⁴⁹ Paris Agreement, Article 8, Annex 93. Note that the Conference of the Parties clarified that “Article 8 of the Agreement does not involve or provide a basis for any liability or compensation” (Adoption of the Paris Agreement, Decision 1/CP.21, Report of the Conference of the Parties on its Twenty-First Session, held in Paris from 30 November to 13 December 2015, Addendum, Part two: Action taken by the Conference of the Parties at its Twenty-First Session, FCCC/CP/2015/10/Add.1, 29 January 2016, paragraph 52, Annex 169).

⁴⁵⁰ UNCCD, Article 20(2), Annex 61.

⁴⁵¹ *See* Section VI.J(i).

- a. under the Convention on the Law of the Non-Navigational Uses of International Watercourses, 41 States agree to “prevent the causing of significant harm to other watercourse States.”⁴⁵² However:

[w]here significant harm nevertheless is caused to another watercourse State, the States whose use causes such harm shall, in the absence of agreement to such use, take all appropriate measures, having due regard for the provisions of articles 5 and 6, in consultation with the affected State, to eliminate or mitigate such harm and, where appropriate, to discuss the question of compensation.⁴⁵³
- b. under the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 52 States agree to be guided by the polluter pays principle “by virtue of which costs of pollution prevention, control and reduction measures shall be borne by the polluter”;⁴⁵⁴
- c. under the Antarctic Environmental Protocol, 46 States agree that an operator (which may be a State) is liable for environmental emergencies (i.e., events that result or threaten to result in significant and harmful impact on the Antarctic environment) and that “liability shall be strict”;⁴⁵⁵
- d. under the Convention on Third Party Liability in the Field of Nuclear Energy, 12 States agree that an operator (which may be a State) shall be “liable in accordance with this Convention for damage caused by a nuclear incident occurring thereafter and involving the nuclear substances.”⁴⁵⁶ Moreover, they also agree that “if an action is brought against a Contracting Party as an

⁴⁵² Convention on the Law of the Non-Navigational Uses of International Watercourses, Article 7(1), Annex 66.

⁴⁵³ Convention on the Law of the Non-Navigational Uses of International Watercourses, Article 7(2), Annex 66.

⁴⁵⁴ Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Article 2(5)(b), Annex 47.

⁴⁵⁵ Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty, Liability Arising From Environmental Emergencies, 17 June 2005, Articles 2(b), 2(c), 6(1) and 6(3), Annex 82 Bis.

⁴⁵⁶ Convention on Third Party Liability in the Field of Nuclear Energy and Additional Protocol to the said Convention, 29 July 1960, 956 UNTS 251 (“**1960 Paris Convention**”), Article 4(b), Annex 8.

operator liable under this Convention, such Contracting Party may not invoke any jurisdictional immunities before the court competent”,⁴⁵⁷

- e. under the Vienna Convention on Civil Liability for Nuclear Damage, 44 States agree that “the liability of the operator [which may be a State] for nuclear damage under this Convention shall be absolute.”⁴⁵⁸ Furthermore, they also agree that “except in respect of measures of execution, jurisdictional immunities under rules of national or international law shall not be invoked in actions under this Convention before the courts competent pursuant to article XI”,⁴⁵⁹
- a. under the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies, 135 States agree that “each State Party from whose territory or facility an object is launched, is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air or in outer space, including the moon and other celestial bodies”,⁴⁶⁰
- f. under the Convention on the International Liability for Damage Caused by Space Objects, 117 States agree to “be absolutely liable to pay compensation for damage caused by its space object on the surface of the earth or to aircraft in flight”,⁴⁶¹
- g. under the Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources, 9 States agree that “the operator [which may be a State] of the installation at the time of

⁴⁵⁷ 1960 Paris Convention, Article 13 (f), Annex 8.

⁴⁵⁸ Vienna Convention on Civil Liability for Nuclear Damage, 21 May 1963, 1063 UNTS 265, Article IV(1), Annex 9.

⁴⁵⁹ Vienna Convention on Civil liability for Nuclear Damage, 21 May 1963, 1063 UNTS 265, Article XIV, Annex 9.

⁴⁶⁰ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies, 27 January 1967, 610 UNTS 205, Article VII, Annex 12.

⁴⁶¹ Convention on the International Liability for Damage Caused by Space Objects, 29 March 1972, 961 UNTS 187, Article II, Annex 16.

an incident shall be liable for any pollution damage resulting from the incident”;⁴⁶²

- h. under the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 8 States agree that “the owner [which may be a State] at the time of an incident shall be liable for damage caused by any hazardous and noxious substances in connection with their carriage by sea on board the ship, provided that if an incident consists of a series of occurrences having the same origin the liability shall attach to the owner at the time of the first of such occurrences”;⁴⁶³
- i. under the International Convention on Civil Liability for Bunker Oil Pollution Damage, 106 States agree that “the shipowner [which may be a State] at the time of an incident shall be liable for pollution damage caused by any bunker oil on board or originating from the ship, provided that, if an incident consists of a series of occurrences having the same origin, the liability shall attach to the shipowner at the time of the first of such occurrences”;⁴⁶⁴
- j. under the International Convention on Civil Liability for Oil Pollution Damage (as amended by its 1992 Protocol), 44 States agree that the “owner [which may be a State] of a ship at the time of an incident... shall be liable for any pollution damage caused by the ship as a result of the incident”;⁴⁶⁵ and

⁴⁶² Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources, 1 May 1977, Article 3(1), Annex 23.

⁴⁶³ International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea “2010 HNS Convention”, 30 April 2010, Article 7(1), Annex 87.

⁴⁶⁴ International Convention on Civil Liability for Bunker Oil Pollution Damage, 23 March 2001, UK Treaty Series No. 47 (2012), Article 3(1), Annex 75.

⁴⁶⁵ International Convention on Civil Liability for Oil Pollution Damage, 29 November 1969, 973 UNTS 3, Article III(1), Annex 14 (amended by the Protocol to the International Convention on Civil Liability for Oil Pollution Damage, 27 November 1992, 1956 UNTS 255, Article 4(1)).

- k. under the Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, 9 States agree that an operator (which may be a State) is liable for damage caused by specific dangerous activities.⁴⁶⁶
220. Under international conventions, States also agree to make up the difference up to the limit of a non-State operator's liability not covered by their insurance or other financial securities by setting up compensation funds.⁴⁶⁷ For example:
- a. under the Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage, 25 States agree that “the Installation State . . . may establish a lower amount of liability of the operator, provided that in no event shall any amount so established be less than 5 million SDRs, and provided that the Installation State ensures that public funds shall be made available up to the amount established pursuant to paragraph 1”,⁴⁶⁸
 - b. under the Convention on Supplementary Compensation for Nuclear Damage, 22 States agree that “beyond the amount made available under sub-paragraph (a), the Contracting Parties shall make available public funds according to the formula specified in Article IV”,⁴⁶⁹ and
 - c. under the Protocol of 1992 to amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 121 States agree to establish an international fund with the aim “to

⁴⁶⁶ See Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, 21 June 1993, European Treaty Series No. 150 (“**Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment**”), Article 6(1), Annex 55.

⁴⁶⁷ See, e.g., the Compensation Funds for Marine Oil Pollution Damage established by the International Convention on Civil Liability for Oil Pollution Damage, 29 November 1969, 973 UNTS 3, Annex 53 (amended by the Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, 27 November 1992, 1956 UNTS 255, Annex 78); the Compensation Fund for Nuclear Damage established by the Convention on Supplementary Compensation for Nuclear Damage, 12 September 1997, 3038 UNTS 41, Article III(1), Annex 68; a fund created by Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty, Liability Arising From Environmental Emergencies, 17 June 2005, Article 12, Annex 7; HNS Fund established by the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea “2010 HNS Convention”, 30 April 2010, Annex 87.

⁴⁶⁸ Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage, 12 September 1997, 2241 UNTS 270, Article 7, Annex 67.

⁴⁶⁹ Convention on Supplementary Compensation for Nuclear Damage, 12 September 1997, 3038 UNTS 41, Article III(1)(b), Annex 68.

provide compensation for pollution damage to the extent that the protection afforded by the 1992 Liability Convention is inadequate.”⁴⁷⁰

221. In addition, international conventions require States to adopt rules and procedures to determine liability and compensation for damage resulting from pollution.⁴⁷¹
222. In fact, this obligation to compensate is supported by State practice.
223. First, in declarations, States promote cooperation to develop the international law regarding liability and compensation for the victims of pollution and other environmental damages caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction:
- a. in the Stockholm Declaration, 113 States promise to “co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction”;⁴⁷²
 - b. in the Rio Declaration, 179 States promise to “develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and

⁴⁷⁰ Protocol of 1992 to Amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 27 November 1992, 1953 UNTS 330 (“**1992 Protocol to Amend the Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage**”), Article 3(1)(a), Annex 54.

⁴⁷¹ See, e.g., Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, 24 March 1983, 1506 UNTS 157, Article 14, Annex 33; Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, 21 June 1985, OJ C 253/10, Article 15, Annex 36; Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution, 24 April 1978, 1140 UNTS 133, Article 13, Annex 24; Protocol on the prevention of pollution of the Mediterranean Sea by transboundary movements of hazardous wastes and their disposal, 1 October 1996, 2942 UNTS 155, Article 14, Annex 65; Agreement on the Protection of the Marine Environment and the Coastal Area of the South-East Pacific, 12 November 1981, 1648 UNTS 3, Article 11(1), Annex 30; Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region, 23 March 1981, Article 15, Annex 28; Amended Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean, 31 March 2010 and amended in 2015, UNEP/(DEPI)/EAF/COP8/2015/10, Article 16, Annex 86; Framework Convention for the Protection of the Marine Environment of the Caspian Sea, 4 November 2003, Article 29, Annex 82; Noumea Convention, Article 20, Annex 38.

⁴⁷² Stockholm Declaration, Principle 22, Annex 153.

compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction”;⁴⁷³

- c. in the Declaration on the Right to Development adopted by the UN General Assembly, States promise to “formulate appropriate national development policies that aim at the constant improvement of the well-being of the entire population and of all individuals, on the basis of their active, free and meaningful participation in development and in the fair distribution of the benefits resulting therefrom”⁴⁷⁴ and to “take steps, individually and collectively, to formulate international development policies with a view to facilitating the full realization of the right to development”;⁴⁷⁵ and
- d. in the Universal Declaration of Human Rights, States promise that “[e]veryone is entitled to a social and international order in which the rights and freedoms set forth in this Declaration can be fully realized.”⁴⁷⁶

224. Second, there is practice among States of making *ex gratia* payments to other States as compensation for environmental harm, which supports this obligation.⁴⁷⁷ For example, the United States of America made a payment to Japan for compensation for the injuries or damages sustained due to the thermonuclear tests near the Marshall Islands.⁴⁷⁸ Australia also agreed to make an *ex gratia* payment to Nauru for the

⁴⁷³ Rio Declaration, Principle 13, Annex 157.

⁴⁷⁴ UN General Assembly Resolution 41/128 (1986), A/RES/41/128, 4 December 1986, Article 2(3), Annex 106.

⁴⁷⁵ UN General Assembly Resolution 41/128 (1986), A/RES/41/128, 4 December 1986, Article 4(1), Annex 106.

⁴⁷⁶ Universal Declaration of Human Rights, Article 28, Annex 100.

⁴⁷⁷ However, jurists disagree whether this practice supports an obligation to compensate whether or not a State has committed a wrongful act under international law (see, e.g., M. Montjoie, *The Concept of Liability in the Absence of an Internationally Wrongful Act*, in *THE LAW OF INTERNATIONAL RESPONSIBILITY*, ed. James Crawford et al. (Oxford University Press, 2010), page 507, Annex 463).

⁴⁷⁸ See “International liability for injurious consequences arising out of acts not prohibited by international law”, Report of the Commission to the General Assembly on the work of its forty-seven session, Yearbook of the International Law Commission, A/CN.4/SER.A/1995/Add.1 (Part 1), *International Law Commission*, 23 June 1995, paragraph 179, Annex 435. However, it is unclear whether this was a payment for “legal liability” (see P. Sands and J. Peel, *Principles of International Environmental Law* (Cambridge University Press, 2018) (“**Principles of International Environmental Law**”), page 752, Annex 472, citing E. Margolis, “The Hydrogen Bomb Experiments and International Law”, *The Yale Law Journal*, 1955, page 639), Annex 452.

rehabilitation of phosphate mines administrated by Australia before Nauru reached independence, while at the same time stressing that such compensation was “without prejudice to Australia’s long-standing position that it bears no responsibility for the rehabilitation of the phosphate lands worked out before 1 July 1967.”⁴⁷⁹

225. The obligation to compensate is supported by judicial decisions. For example, in the *Trail Smelter Arbitration*, Canada was requested to pay compensation to the United States of America for environmental harm.⁴⁸⁰
226. The obligation to compensate is further supported by the “polluter pays” principle. This is a general principle of international law recognised by States in international

⁴⁷⁹ Agreement Between Australia and the Republic of Nauru for the Settlement of the Case in the International Court of Justice Concerning Certain Phosphate Lands in Nauru, (Australia and the Republic of Nauru), 10 August 1993, Article I(1), Annex 56.

⁴⁸⁰ See *Trail Smelter Arbitration*, page 1965, Annex 300.

conventions,⁴⁸¹ declarations⁴⁸² and in national jurisdictions.⁴⁸³ According to this principle, the costs of any pollution should be borne by the person responsible for causing the pollution (which includes States or entities whose conduct is assumed by or attributed to the State).⁴⁸⁴

227. This obligation to compensate is also supported by the principles of equity and fairness in human rights law. Under the American Convention on Human Rights, States must provide effective remedies, including compensation, for harm. Other universal and regional human rights treaties require the same (discussed in paragraphs

⁴⁸¹ See, e.g., Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, 21 June 1993, European Treaty Series No. 150, Preamble, Annex 55; Consolidated version of the Treaty on the Functioning of the European Union, 26 October 2012, OJ C 326/47, Articles 191(2) and 192(5), Annex 90; ASEAN Agreement on the Conservation of Nature and Natural Resources, 9 July 1985, Article 10(d), Annex 37; Convention on the protection of the Alps, 7 November 1991, 1917 UNTS 135, Article 2, Annex 46; Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Article 2(5)(b), Annex 47; Convention for the Protection of the Marine Environment of the North-East Atlantic, 22 September 1992, 2354 UNTS 67, Article 2(2)(b), Annex 52; Convention on Co-operation for the Protection and Sustainable Use of the River Danube, 29 June 1994, OJ L 342, Article 2(4), Annex 59; the Energy Charter Treaty, 14 June 1994, 2080 UNTS 95, Article 19(1), Annex 58; Framework Convention on the Protection and Sustainable Development of the Carpathians, 22 May 2003, 3372 UNTS 1, Article 2(2)(b), Annex 80; International Convention on Oil Pollution Preparedness, Response and Co-operation, 30 November 1990, 1891 UNTS 78, Preamble, Annex 44; Convention on the Transboundary Effects of Industrial Accidents, Preamble, Annex 48; Protocol amending the Agreement between Canada and the United States of America on Great Lakes water quality, 1978 as amended on October 16, 1983 and November 18, 1987, 7 September 2012, 3125 UNTS 1, Article 2, Annex 89. However, treaties may derogate from this principle (see, e.g., *Case Concerning the Auditing of Accounts Between the Kingdom of the Netherlands and the French Republic pursuant to the Additional Protocol of 25 September 1991 to the Convention on the Protection of the Rhine Against Pollution by Chlorides of 3 December 1976* (*Netherlands v France*), Award, 12 March 2004, PCA Case No. 2000-02, paragraph 103, Annex 301, in which the tribunal was also of the view that this principle was not part of general international law).

⁴⁸² See, e.g., Rio Declaration, Principle 16, Annex 157; “OECD Recommendation on Guiding Principles concerning International Economic Aspects of Environmental Policies”, OECD/LEGAL/0102, *OECD*, 26 May 1972, Annex 445; “OECD Recommendation of the Council on the Implementation of the Polluter-Pays Principle”, OECD/LEGAL/0132, *OECD*, 14 November 1974, Annex 446; “OECD Recommendation concerning the Application of the Polluter-Pays Principle to Accidental Pollution”, OECD/LEGAL/0251, *OECD*, 7 July 1989, Annex 447; Declaration of the Council of the European Communities and of the representatives of the Governments of the Member States meeting in the Council on the programme of action of the European Communities on the environment, OJ C 112/1, 22 December 1973, Chapter I, A(4) and B(7), Annex 154; Annex, Plan of Implementation of the World Summit on Sustainable Development, Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002, A/CONF.199/20, 2002, paragraph 15(b), Annex 409.

⁴⁸³ See ILC Commentaries on the Draft Principles on the Allocation of Loss in the Case of Transboundary Harm arising out of Hazardous Activities, pages 74, 75, footnote 401, Annex 440.

⁴⁸⁴ See Principles of International Environmental Law, page 240, Annex 472; R. Chemain, *The ‘Polluter Pays’ Principle* in *THE LAW OF INTERNATIONAL RESPONSIBILITY*, ed. James Crawford et al. (Oxford University Press, 2010), page 879, Annex 482.

298 and 299 below).⁴⁸⁵ This obligation of States to provide a remedy to victims of human rights violations resulting from climate change within its jurisdiction demonstrates the need and equitable nature for inter-State reparations for the same. If a State that caused harm to another State would not need to pay reparations to that second State, the compensating State would be forced to shoulder the cost of the internationally wrongful acts of the polluting State. This would go against the international law principle of equity and the principle of fairness.

228. This obligation to compensate is further supported by the most highly qualified publicists:

- a. the ILC's 1996 Draft Articles for International Liability for Injurious Consequences Arising out of Acts not Prohibited by International Law state that "liability arises from significant transboundary harm caused by an activity referred to in article 1 and shall give rise to reparation";⁴⁸⁶
- b. the ILC's 2006 Draft Principles on the Allocation of Loss in the Case of Transboundary Harm arising out of Hazardous Activities acknowledge the existence of a strict liability regime primarily attached to the operator (which may be a State), not requiring proof of fault for the damages caused, supported where necessary by additional compensation funding;⁴⁸⁷
- c. as the Institut de Droit International, an organisation of international lawyers devoted to studying and developing international law, acknowledged that the "obligation to reestablish the original position or to pay compensation" may arise "from a rule of international law providing for strict responsibility on the

⁴⁸⁵ Decisions of human rights bodies demonstrate that States should offer reparations for human rights violations resulting in environmental damage. For example, the African Commission on Human and Peoples' Rights requested Nigeria "to ensure protection of the environment, health and livelihood of the people of Ogoniland" by different means, and notably "[e]nsuring adequate compensation to victims" (African Commission Decision on Communication 155/96, page 15, Annex 324).

⁴⁸⁶ Twelfth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barboza, Special Rapporteur, A/CN.4/475/ and Add.1, 13 May 1996, Article 8, page 35, and paragraph 24.2, page 33, Annex 408 Bis.

⁴⁸⁷ See ILC Commentaries on the Draft Principles on the Allocation of Loss in the Case of Transboundary Harm arising out of Hazardous Activities, Principle 4 (2), Annex 440. See also X. Hu, "The doctrine of liability fixation of State responsibility in the convention on transboundary pollution damage", *International Environmental Agreements: Politics, Law and Economics*, 2020, page 187, Annex 476; Principles of International Environmental Law, page 747, Annex 472.

basis of harm or injury alone” and this is “particularly in the case of ultra-hazardous activities”,⁴⁸⁸ and

d. the Brundtland special commission report called on States to “take all reasonable precautionary measures to limit the risk when carrying out or permitting certain dangerous but beneficial activities and shall ensure that compensation is provided should substantial transboundary harm occur even when the activities were not known to be harmful at the time they were undertaken.”⁴⁸⁹

(ii) In addition, States must also pay compensation for loss and damage caused by anthropogenic gas emissions where they have breached another international law obligation

229. As further discussed in **Section VI.H**, States are liable to make full reparation for wrongful acts. This includes compensating for loss and damage caused by anthropogenic gas emissions.

230. In this regard, this Court has correctly already awarded compensation for breaches of human rights which cause environmental harm.⁴⁹⁰ As has the ICJ – for example, in *Certain Activities Carried Out by Nicaragua in the Border Area*, the ICJ decided 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 itself, in addition to expenses incurred by an injured State as a consequence of such damage.”⁴⁹¹ The ICJ also asserted that “that damage to the environment, and the

⁴⁸⁸ “Responsibility and Liability under International Law for Environmental Damage”, Session of Strasbourg, *Institut de Droit International Resolution*, 1997 (“**Responsibility and Liability under International Law for Environmental Damage**”), Article 1, Annex 458. *See also* Responsibility and Liability under International Law for Environmental Damage, Article 4, Annex 458.

⁴⁸⁹ “Report of the World Commission on Environment and Development - Our Common Future”, *Brundtland Commission*, 1987, Annex 1, paragraph 11, Annex 406.

⁴⁹⁰ *See, e.g., Case of the Indigenous Communities of the Lhaka Honhat Association (Our Land) v Argentina*, paragraphs 337-342, Annex 252.

⁴⁹¹ *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraph 41, Annex 279.

consequent impairment or loss of the ability of the environment to provide goods and services, is compensable under international law.”⁴⁹²

231. Notably, as the ICJ has stated, States must compensate for such harm even where there is an absence of adequate evidence as to the extent of material damage.⁴⁹³ After all, as the Tribunal in the *Trail Smelter Arbitration* noted, it would be a “perversion of fundamental principles of justice to deny relief” where the act “itself is of such a nature as to preclude the ascertainment of the amount of damages with certainty.”⁴⁹⁴ In such case, the ICJ, this Court and the ECtHR, among many others, award compensation on the basis of “equitable considerations.”⁴⁹⁵

⁴⁹² *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraph 42, Annex 279.

⁴⁹³ *See Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraph 35, Annex 279.

⁴⁹⁴ *Trail Smelter Arbitration*, page 1920, Annex 300 (citing *United States Supreme Court in Story Parchment Company v Paterson Parchment Paper Company* (1931), 282 U. S. 55, Annex 326).

⁴⁹⁵ *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraph 35, Annex 279. *See also*, e.g., *Ahmadou Sadio Diallo (Republic of Guinea v Democratic Republic of the Congo)*, *Compensation, Judgment of 19 June 2012*, I.C.J. Reports 2012, p. 324, paragraphs 33 and 36, Annex 274; *Case of Chaparro Alvarez and Lapo Iñiguez v Ecuador. Preliminary Objections, Merits, Reparations and Costs. Judgment of November 21, 2007*. Series C No. 170, paragraphs 240 and 242, Annex 248; *Lupsa v Romania* [2006] ECHR 604, paragraph 72, Annex 292.

QUESTION 2: HOW SHOULD STATES ACT, BOTH INDIVIDUALLY AND COLLECTIVELY, TO GUARANTEE THE RIGHT TO REDRESS FOR THE DAMAGE CAUSED BY THEIR ACTS AND OMISSIONS IN RELATION TO THE CLIMATE EMERGENCY, TAKING INTO ACCOUNT CONSIDERATIONS OF EQUITY, JUSTICE AND SUSTAINABILITY?

ANSWER

232. *Ubi jus, ibi remedium*: every right carries a remedy in breach. This classic legal principle animates this advisory opinion. Reparations and assistance are of critical significance to ensuring the protection of human rights in the inter-American system that are or would otherwise be affected by the climate emergency.
233. Sub-sections H to K set out how States should act, both individually and collectively, to guarantee the right to redress for the damage caused by their acts and omissions in relation to the climate emergency, taking into account considerations of equity, justice and sustainability. International law requires that: (a) States must provide full monetary reparation to other States for climate change damage caused by their wrongful acts in breach of obligations (**Section VI.H**); (b) States must offer full monetary reparation to other States for acts and omissions attributable to them in whole or in part (**Section VI.I**); (c) States must offer other redress for damage due to climate change by *inter alia* contributing to climate change funds, offering financial resources and ensuring transfers of technology (**Section VI.J**); and (d) full reparation and other assistance to address climate change must take account of the circumstances of affected States and peoples (**Section VI.K**).

H. States must provide full monetary reparation to other States for climate change damage

234. A State must make full reparations for damage to the environment caused by that State's internationally wrongful act, i.e., for a violation of the obligations in relation to climate change set out in **Sections VI.B-G** above. The principle of strict liability includes liability for transboundary harm without other fault. States are thus obligated to provide reparations on this strict liability basis, or otherwise, under general international law (*see* sub-section (i) below) and international environmental law (*see* sub-section (ii) below).

(i) States must provide full monetary reparation under general international law

235. As stated in the *Chorzów Factory* case, the principle of full reparation requires the State to “wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed.”⁴⁹⁶ This formulation is universally accepted.⁴⁹⁷ As recognised by the ICJ in its judgment on the merits in the *Armed Activities Case*:

[t]he Court observes that it is well established in general international law that a State which bears responsibility for an internationally wrongful act is under an obligation to make full reparation for the injury caused by that act.⁴⁹⁸

236. The principle of full reparations is also incorporated in the Articles on Responsibility of States.⁴⁹⁹ Article 31 states that “the responsible State is under an obligation to make full reparation for the injury caused by the internationally wrongful act,” specifying that the “[i]njury includes any damage . . . caused by the internationally wrongful act of a State.”⁵⁰⁰

237. Likewise, in the specific context of environmental damage, the Institut de Droit International has stipulated that:

[t]he breach of an obligation of environmental protection established under international law engages responsibility of the State (international responsibility), entailing as a consequence the obligation to reestablish the original position or to pay compensation.⁵⁰¹

⁴⁹⁶ *Case Concerning the Factory at Chorzów (Claim for Indemnity) (Merits)*, Judgment of 13 September 1928, PCIJ, Series A-No. 17, page 47, Annex 288.

⁴⁹⁷ *See Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v Uganda)*, Reparations, Judgment of 9 February 2022, I.C.J. Reports 2022, p. 13, paragraphs 69, 99-100, Annex 281; *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v Uganda)*, Merits, Judgment of 19 December 2005, I.C.J. Reports 2005, p. 168, paragraph 259, Annex 270; *Gabčíkovo-Nagymaros*, paragraphs 150 and 152, Annex 266; *Avena and Other Mexican Nationals (Mexico v United States of America)*, Judgment of 31 March 2004, I.C.J. Reports 2004, p. 12, paragraph 119, Annex 269; Articles on Responsibility of States, Article 31, Annex 438.

⁴⁹⁸ *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v Uganda)*, Merits, Judgment of 19 December 2005, I.C.J. Reports 2005, p. 168, paragraph 259, Annex 270. *See also Gabčíkovo-Nagymaros*, paragraph 152 (“It is a well-established rule of international law that an injured State is entitled to obtain compensation from the State which has committed an internationally wrongful act for the damage caused by it”), Annex 266.

⁴⁹⁹ *See* J. Crawford, *State Responsibility* (Cambridge University Press, 2013), pages 480-482, Annex 467.

⁵⁰⁰ Articles on Responsibility of States, Article 31, Annex 438.

⁵⁰¹ Responsibility and Liability under International Law for Environmental Damage, Article 1, Annex 458.

238. Breaching States are collectively responsible for damage caused by climate change. In this respect, Article 47(1) of the Articles on Responsibility of States provides that “[w]here several States are responsible for the same internationally wrongful act, the responsibility of each State may be invoked in relation to that act.”⁵⁰² As stated in subsequent Article 47(2)(b), this collective responsibility “is without prejudice to any right of recourse against the other responsible States.”⁵⁰³ The Guiding Principles on Shared Responsibility in International Law likewise provide that “[t]he commission by multiple international persons of one or more internationally wrongful acts that contribute to an indivisible injury entails shared responsibility.”⁵⁰⁴ These guidelines also note that each party sharing responsibility for such an international wrongful act “is under an obligation to make full reparation for the indivisible injury caused by the single or multiple internationally wrongful acts, unless its contribution to the injury is negligible.”⁵⁰⁵
239. Climate change loss that is subject to reparations includes damage to the environment (i.e., “pure” environmental damage such as ecosystem changes or the destruction of biological diversity) and damage to people and property (i.e., defined economic assets including the cost of any adaptation measures⁵⁰⁶).⁵⁰⁷ The obligation to repair “pure” environmental damage is supported by the Articles on Responsibility of States. Article 31(2) of the Articles on Responsibility of States provides that “[i]njury includes any damage, whether material or moral, caused by the internationally wrongful act of a State.”⁵⁰⁸ In *Certain Activities Carried Out by Nicaragua in the Border Area*, the ICJ confirmed that “pure” environmental damage is recoverable. It held that:

⁵⁰² Articles on Responsibility of States, Article 47(1), Annex 438.

⁵⁰³ Articles on Responsibility of States, Article 47(2)(b), Annex 438.

⁵⁰⁴ A. Nollkaemper et al., “Guiding Principles on Shared Responsibility in International Law”, *The European Journal of International Law*, 2020, (“**Guiding Principles on Shared Responsibility in International Law**”), Principle 2(1), Annex 475.

⁵⁰⁵ Guiding Principles on Shared Responsibility in International Law, Principle 10, Annex 475.

⁵⁰⁶ See C. Voigt, *State Responsibility for Damages associated with Climate Change*, in RESEARCH HANDBOOK ON CLIMATE CHANGE LAW AND LOSS & DAMAGE, eds. Meinhard Doelle and Sara L. Seck (Edward Elgar Publishing Limited, 2021), page 181, Annex 483.

⁵⁰⁷ See M. Fitzmaurice et al., *International Environmental Law, Text, Cases and Materials* (Edward Elgar Publishing Limited, 2022), page 424, Annex 486.

⁵⁰⁸ Articles on Responsibility of States, Article 31(2), Annex 438.

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 itself, in addition to expenses incurred by an injured State as a consequence of such damage . . .⁵⁰⁹

The Court is therefore of the view 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. Such compensation may include indemnification for the impairment or loss of environmental goods and services in the period prior to recovery and payment for the restoration of the damaged environment.⁵¹⁰

240. The UN Security Council has similarly recognised that States are liable for “pure” environmental damage resulting from an international wrongful act. In 1991, it affirmed that Iraq was liable “under international law” for *inter alia* “environmental damage and the depletion of natural resources . . . occurring as a result of its unlawful invasion and occupation of Kuwait.”⁵¹¹
241. Full reparations in international law can take the form of restitution, compensation or satisfaction.⁵¹² In the field of climate change, compensation plays an important role. Environmental damage, as well as other damage resulting from climate change, is frequently irreversible,⁵¹³ making restitution impossible. In *Gabčíkovo-Nagymaros*, the ICJ noted this “often irreversible character of damage to the environment.”⁵¹⁴ The

⁵⁰⁹ *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraphs 41-42, Annex 279.

⁵¹⁰ *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraph 42, Annex 279.

⁵¹¹ UN Security Council Resolution 687 (1991) reaffirming that Iraq was “liable under international law for any direct loss, damage, including environmental damage and the depletion of natural resources...occurring as a result of its unlawful invasion and occupation of Kuwait” (UN Security Council Resolution 687 (1991), S/RES/687, 8 April 1991, paragraph 16, Annex 109).

⁵¹² *See* Articles on Responsibility of States, Article 34 (“Full reparation for the injury caused by the internationally wrongful act shall take the form of restitution, compensation and satisfaction, either singly or in combination”), Annex 438. In accordance with Article 36(2) of the Articles on State Responsibility, monetary compensation must “cover any financially assessable damage including loss of profits insofar as it is established.” *See also* Guiding Principles on Shared Responsibility in International Law, Principle 11, Annex 475.

⁵¹³ The precautionary principle, as formulated in the UNFCCC includes the “threats of serious or irreversible damage” from climate change (*see* UNFCCC, Article 3(3), Annex 50).

⁵¹⁴ *Gabčíkovo-Nagymaros*, paragraph 140 (“in the field of environmental protection, vigilance and prevention are required on account 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”), Annex 266.

ICJ has confirmed repeatedly that in such circumstances, when restitution is not possible, reparation may take “the form of compensation or satisfaction, or even both.”⁵¹⁵ In the *Certain Activities Carried Out by Nicaragua in the Border Area* case, the ICJ added that compensation for environmental damage includes “indemnification for the impairment or loss of environmental goods and services in the period prior to recovery and payment for the restoration of the damaged environment.”⁵¹⁶ It also held that compensation for restoration should reflect that “active restoration measures may be required in order to return the environment to its prior condition.”⁵¹⁷

242. The obligation to make full reparations is not diminished by the complexities of climate change. Reparations of environmental harm raise various complexities, such as how to quantify the harm, causation, the significant amount of compensation required, attribution of the harm among polluting States, the ongoing and unpredictable nature of the harm and other evidentiary difficulties.⁵¹⁸ None of these complexities, however, excuse a State from meeting its international law obligation to make reparations.⁵¹⁹ In such cases, where due to the nature and circumstances of the internationally wrongful act the available evidence might be imprecise or carry other defects, compensation can be calculated by, first, agreement between States and, failing that, approximation if needed. This is supported by the following seminal

⁵¹⁵ *Pulp Mills*, paragraph 273, Annex 272; *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraph 31, Annex 279.

⁵¹⁶ *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraph 42, Annex 279.

⁵¹⁷ *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraph 43, Annex 279.

⁵¹⁸ See, e.g., Section VI.G(ii) above. In *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, the ICJ stated that “the absence of adequate evidence as to the extent of material damage will not, in all situations, preclude an award of compensation for that damage” (*Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraph 35, Annex 279). The *Trail Smelter Arbitration* award, which quotes the US Supreme Court in *Story Parchment Company v Paterson Parchment Paper Company* states: “[w]here the tort itself is of such a nature as to preclude the ascertainment of the amount of damages with certainty, it would be a perversion of fundamental principles of justice to deny all relief to the injured person, and thereby relieve the wrongdoer from making any amend for his acts. In such case, while the damages may not be determined by mere speculation or guess, it will be enough if the evidence show the extent of the damages as a matter of just and reasonable inference, although the result be only approximate” (*Trail Smelter Arbitration*, page 1965, Annex 300).

⁵¹⁹ See *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraphs 34-35, Annex 279.

paragraph from the *Trail Smelter Arbitration*, which has been cited approvingly by the ICJ and other international courts and tribunals.⁵²⁰

[w]here the tort itself is of such a nature as to preclude the ascertainment of the amount of damages with certainty, it would be a perversion of fundamental principles of justice to deny all relief to the injured person, and thereby relieve the wrongdoer from making any amend for his acts. In such case, while the damages may not be determined by mere speculation or guess, it will be enough if the evidence show the extent of the damages as a matter of just and reasonable inference, although the result be only approximate.⁵²¹

243. In the same vein, the ICJ in the *Certain Activities Carried Out by Nicaragua in the Border Area* case found that “[i]n respect of the valuation of damage . . . the absence of adequate evidence as to the extent of material damage will not, in all situations, preclude an award of compensation for that damage.”⁵²² The Eritrea-Ethiopia Claims Commission relied on “the best estimates possible on the basis of the available evidence” and it recalled that “when obligated to determine appropriate compensation, it must do so even if the process involves estimation, or even guesswork, within the range of possibilities indicated by the evidence.”⁵²³ In this respect, the Commission

⁵²⁰ See *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraph 41, Annex 279. See also *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v Uganda)*, *Reparations, Judgment of 9 February 2022*, I.C.J. Reports 2022, p. 13, paragraphs 106, 360, Annex 281; *Ahmadou Sadio Diallo (Republic of Guinea v Democratic Republic of the Congo)*, *Compensation, Judgment of 19 June 2012*, I.C.J. Reports 2012, p. 324, paragraph 33, Annex 274; *Judgments of the Administrative Tribunal of the ILO upon complaints made against the UNESCO, Advisory Opinion of 23 October 1956*, I.C.J. Reports 1956, p. 77, page 100, Annex 258; *Eritrea-Ethiopia Claims Commission, Final Award*, 17 August 2009, PCA Case No. 2001-02 (“**Eritrea-Ethiopia Final Award**”), paragraphs 37,40, Annex 302; *The Prosecutor v Ahmad Al Faki Al Mahdi, Reparations Order of 17 August 2017*, ICC Case No. ICC-01/12-01/15, paragraphs 116-127, Annex 306; *Case of the Kichwa Indigenous People of Sarayaku v Ecuador, Merits and Reparations. Judgment of June 27, 2012. Series C No. 245*, paragraph 315 (“The Court underlines that the probative elements submitted are not sufficient or specific enough to determine the loss of earnings by members of the Sarayaku People . . . However, in the circumstances of this case, it is reasonable to presume that these events led to a series of expenses and loss of earnings.”), Annex 251; “Report and Recommendation made by the Panel of Commissioners Concerning the Fifth Instalments of F4 Claims”, S/AC.26/2005/10, *Governing Council, United Nations Compensation Commission*, 30 June 2005, paragraph 80, Annex 307.

⁵²¹ *Trail Smelter Arbitration*, page 1920, Annex 300.

⁵²² *Certain Activities Carried Out by Nicaragua in the Border Area Compensation Judgment*, paragraph 35, Annex 279. In the *Corfu Channel* case, the ICJ accepted the UK’s “figures and estimates” of its damages, adjudging whether these figures were “reasonable” (*Corfu Channel (United Kingdom of Great Britain and Northern Ireland v Albania)*, *Compensation, Judgment of 15 December 1949*, I.C.J. Reports 1949, p. 244, page 260, Annex 257).

⁵²³ *Eritrea-Ethiopia Final Award*, paragraph 37, Annex 302.

also noted that determining “the appropriate compensation for each such violation . . . require[s] exercises of judgment and approximation.”⁵²⁴

(ii) States must provide full monetary reparation under international environmental law

244. The obligation of States to offer reparations for environmental damage is also supported in international environmental law. Two early influential expressions of the obligation to offer compensation for such damage are the Stockholm Declaration and the Rio Declaration. Principle 22 of the Stockholm Declaration calls on States to develop international law on compensation for environmental damage. It affirms that:

States shall cooperate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage.⁵²⁵

245. Principle 13 of the Rio Declaration similarly declares that States need to develop international law on the compensation for environmental damage and adds that they should also develop national laws regarding the same. It provides that:

States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.⁵²⁶

246. Principle 7 of the Rio Declaration further recognises the particular responsibility of developed States. It states: “developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment.”⁵²⁷

247. Under Article 8(1) of the Paris Agreement, States unequivocally recognised “the importance of averting, minimising and addressing loss and damage associated with

⁵²⁴ *Eritrea-Ethiopia Final Award*, paragraphs 37, 85, Annex 302.

⁵²⁵ Stockholm Declaration, Principle 22, Annex 153.

⁵²⁶ Rio Declaration, Principle 13, Annex 157.

⁵²⁷ Rio Declaration, Principle 7, Annex 157.

the adverse effects of climate change.”⁵²⁸ However, the decision adopting the Paris Agreement provides that Article 8 of the Paris Agreement “does not involve or provide a basis for any liability or compensation.”⁵²⁹ Importantly, this clause does not “exclude liability on the basis of other articles of the Paris Agreement, other treaties, the general principles of law, or on the basis of customary international law.”⁵³⁰ Neither does the clause exclude the application of general rules of international law that provide for the obligation to repair climate change damage resulting from the internationally wrongful acts of States, set out in **Section VI.E** above.⁵³¹

248. States have also committed through various international conventions that they will pay for specific loss and damage to the environment, such as due to oil pollution,⁵³²

⁵²⁸ Paris Agreement, Article 8(1), Annex 93.

⁵²⁹ Adoption of the Paris Agreement, Decision 1/CP.21, Report of the Conference of the Parties on its Twenty-First Session, held in Paris from 30 November to 13 December 2015, Addendum, Part two: Action taken by the Conference of the Parties at its Twenty-First Session, FCCC/CP/2015/10/Add.1, 29 January 2016, paragraph 51, Annex 169.

⁵³⁰ C. Voigt, *State Responsibility for Damages associated with Climate Change*, in RESEARCH HANDBOOK ON CLIMATE CHANGE LAW AND LOSS & DAMAGE, eds. Meinhard Doelle and Sara L. Seck (Edward Elgar Publishing Limited, 2021), page 167, Annex 483.

⁵³¹ See Cook Islands, Ratification of the Paris Agreement, 1 September 2016, C.N.609.2016.Treaties-XXVII.7.d (Depositary Notification), Annex 173; Republic of the Marshall Islands, Ratification of the Paris Agreement, 22 April 2016, C.N.173.2016.Treaties-XXVII.7.d (Depositary Notification), Annex 171; Federated States of Micronesia, Ratification of the Paris Agreement, 15 September 2016, C.N.626.2016.Treaties-XXVII.7.d (Depositary Notification), Annex 174; Republic of Nauru, Ratification of the Paris Agreement, 22 April 2016, C.N.179.2016.Treaties-XXVII.7.d (Depositary Notification), Annex 172; Niue, Ratification of the Paris Agreement, 28 October 2016, C.N.807.2016.Treaties-XXVII.7.d (Depositary Notification), Annex 177; Republic of the Philippines, Ratification of the Paris Agreement, 23 March 2017, C.N.149.2017.Treaties-XXVII.7.d (Depositary Notification), Annex 178; Solomon Islands, Ratification of the Paris Agreement, 21 September 2016, C.N.650.2016.Treaties-XXVII.7.d (Depositary Notification), Annex 175; Tuvalu, Ratification of the Paris Agreement, 22 April 2016, C.N.183.2016.Treaties-XXVII.7.d (Depositary Notification), Annex 170; Republic of Vanuatu, Ratification of the Paris Agreement, 21 September 2016, C.N.653.2016.Treaties-XXVII.7.d (Depositary Notification), Annex 176.

⁵³² See, e.g., International Convention on Civil Liability for Oil Pollution Damage, 29 November 1969, 973 UNTS 3, Annex 14 (amended by the Protocol of 1992 to Amend the International Convention on Civil Liability for Oil Pollution Damage, 27 November 1992, 1956 UNTS 255, Articles 2 and 3, Annex 53); International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 18 December 1971, 1110 UNTS 57 (“**International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage**”), Article 2, Annex 15 (amended by the 1992 Protocol to Amend the Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Article 3, Annex 54); International Convention on Civil Liability for Bunker Oil Pollution Damage, 23 March 2001, UK Treaty Series No. 47 (2012), Article 3, Annex 75.

nuclear damage,⁵³³ damage to the marine environment,⁵³⁴ hazardous waste⁵³⁵ and other environmental damage.⁵³⁶

249. The obligation to offer reparations for environmental damage is encompassed in well-established principles of international environmental law, in particular, the polluter pays principle and the no-harm principle. The polluter pays principle is a foundational principle of international environmental law that, as noted in **Section VI.G** above, is recognised by States in treaties, declarations and in national jurisdictions. The polluter pays principle is a general principle of international law, as recognised by several treaties.⁵³⁷ In essence and as described in the Rio Declaration, the polluter pays principle entails that the State causing environmental pollution should “bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.”⁵³⁸ The principle shifts the costs for pollution onto the polluter, which is a key tenet of environmental fault-based liability

⁵³³ See, e.g., 1960 Paris Convention, Article 6(a), Annex 8; Vienna Convention on Civil Liability for Nuclear Damage, 1063 UNTS 265, 21 May 1963, Article 2, Annex 9.

⁵³⁴ See, e.g., Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution, 24 April 1978, 1140 UNTS 133, Article XIII, Annex 24; The Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment, 14 February 1982, Article XIII, Annex 31; Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, 24 March 1983, 1506 UNTS 157, Article 14, Annex 33; Noumea Convention, Article 20, Annex 38; Convention on the Protection of the Marine Environment of the Baltic Sea Area, 22 March 1974, 1507 UNTS 166, Article 17, Annex 21; Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 29 December 1972, 1046 UNTS 120, Article X, Annex 19; Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 29 January 2000, 2226 UNTS 208, Article 27 (giving rise to the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress, 15 October 2010, 3240 UNTS 1, Annex 88), Annex 73.

⁵³⁵ See, e.g., Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal, 10 December 1999, Article 6, Annex 72.

⁵³⁶ See, e.g., Antarctic Environmental Protocol, Article 16 (the parties committed to elaborate rules and procedures relating to liability for damage arising from activities taking place in the Antarctic and covered by the Protocol), Annex 45; International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea “2010 HNS Convention”, 30 April 2010, Article 23, Annex 87 (replacing the 1996 International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 3 May 1996).

⁵³⁷ See, e.g., International Convention on Oil Pollution Preparedness, Response and Co-operation, 30 November 1990, 1891 UNTS 78, Preamble, page 79, Annex 44; Convention on the Transboundary Effects of Industrial Accidents, Preamble, page 461, Annex 48; Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes and to the 1992 Convention on the Transboundary Effects of Industrial Accidents, 21 May 2003, Preamble, Annex 79.

⁵³⁸ Rio Declaration, Principle 16, Annex 157.

and aligned with the principle of equity and the principle of fairness under international law.⁵³⁹

250. Inter-State reparations for climate change damage are also a corollary of the no-harm principle,⁵⁴⁰ which is a general principle of international environmental law that has been incorporated into various international environmental law instruments.⁵⁴¹ Breach of the no-harm principle has resulted in international courts and tribunals ordering the payment of compensation. For example, in the *Trail Smelter Arbitration*, one of the first cases in which environmental damage was addressed, an international arbitral tribunal ordered Canada to pay the United States of America compensation for the transboundary environmental harm caused.⁵⁴²
251. Last, the work of esteemed scholars in the field of international environmental law supports that States are to provide compensation for harm caused by their international wrongful acts. For example, Principle 21 of the Legal Principles for Environmental Protection and Sustainable Development adopted by the World Commission on Environment and Development Experts Group on Environmental Law, stipulates under the heading “State Responsibility” that “States shall cease activities which breach an international obligation regarding the environment and provide compensation for the harm caused.”⁵⁴³

⁵³⁹ See Directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage, 21 April 2004, 2004/35/EC, Article 1 (“The purpose of this Directive is to establish a framework of environmental liability based on the ‘polluter-pays’ principle, to prevent and remedy environmental damage”), Annex 143.

⁵⁴⁰ See M. Fitzmaurice, et al., *International Environmental Law, Text, Cases and Materials* (Edward Elgar Publishing Limited, 2022), page 424, Annex 486.

⁵⁴¹ See Rio Declaration, Principle 16, Annex 157; Stockholm Declaration, Principle 21, Annex 153. See also UNFCCC, Preamble, recital 8, Annex 50; Convention on the Law of the Non-Navigational Uses of International Watercourses, Article 7, Annex 66; UNCCD, Preamble, page 110, Annex 61; Stockholm Convention on Persistent Organic Pollutants, 22 May 2001, 2256 UNTS 119, Preamble, page 215, Annex 76; International Tropical Timber Agreement, 2006, 27 January 2006, 2797 UNTS 75, Preamble, recital (d), Annex 84.

⁵⁴² See *Trail Smelter Arbitration*, Annex 300.

⁵⁴³ “Report of the World Commission on Environment and Development - Our Common Future”, *Brundtland Commission*, 1987, Annex 1, Principle 21, Annex 406.

I. States must offer full monetary reparation to other States for climate change caused by acts and omissions attributable to them in whole or in part

252. As discussed in **Sections VI.B-D**, States are required to protect and preserve the environment and prevent transboundary harm. This includes preventing harm to the climate system and other parts of the environment from private parties, such as companies and individuals.
253. States should also offer full monetary reparation to other States for acts and omissions attributable to them in whole or in part under the rules of State responsibility. This includes providing full monetary reparation for acts and omissions of the State's organs, persons or entities empowered by the State with governmental authority and others acting on the instructions of the State. States regularly act through such parties (e.g., State-owned corporations), which can be large emitters of greenhouse gases.
254. This Court has confirmed that "any act or omission that may be attributed to the State, in violation of the norms of international human rights law engages the international responsibility of the State."⁵⁴⁴ As this Court also noted, States may be found internationally responsible for acts or omissions attributed to them within their territory and also for those acts or omissions committed outside their territory, but under their jurisdiction.⁵⁴⁵
255. This is consistent with established rules of international law, as articulated by the ILC in the Articles on Responsibility of States.⁵⁴⁶ The Articles on Responsibility of States

⁵⁴⁴ *Case of "The Last Temptation of Christ" (Olmedo Bustos et al., v Chile). Merits, Reparations and Costs.* Judgment of February 5, 2001. Series C No. 73, paragraph 72, Annex 241. *See also* remark of Judge Cançado Trindade, late judge of the ICJ and former judge of this Court: "there cannot be any doubt, according to the most lucid doctrine on International Law; that the State's international responsibility (as a subject of International Law) arises when the illegal act (act or omission), which violates an international obligation, attributable to the State occurs" (*Case of the Miguel Castro (Castro Prison v Peru). Merits, Reparations and Costs.* Judgment of November 25, 2006. Series C No. 160, Concurring Opinion of the Judge A.A. Cançado Trindade, paragraph 32, Annex 247). *See further Case of "The Last Temptation of Christ" (Olmedo Bustos et al., v Chile). Merits, Reparations and Costs.* Judgment of February 5, 2001. Series C No. 73, Concurring Opinion of the Judge A.A. Cançado Trindade, paragraph 16, Annex 242; *Case of the Gómez Paquiyauri Brothers v Peru.* Judgment of July 8, 2004. Series C No. 110, Separate Opinion of the Judge A.A. Cançado Trindade, paragraph 14, Annex 246.

⁵⁴⁵ *See* IACtHR 2017 Advisory Opinion, paragraphs 77-78, Annex 235.

⁵⁴⁶ *See* Articles on Responsibility of States, Articles 1 and 2(a), Annex 438. *See also* Commentary to the Articles on Responsibility of States, Article 2, page 35, paragraph 4, Annex 438 Bis.

are regularly cited by this Court and other international courts and tribunals.⁵⁴⁷ Under the Articles on Responsibility of States, an act or omission may be attributed to a State if it is one of:

- a. an organ of a State.⁵⁴⁸ This Court confirmed that acts or omissions “of any power or organ of the State, whatever its rank” are attributable to a State.⁵⁴⁹ The ICJ has confirmed that this is a rule of customary international law;⁵⁵⁰
- b. persons or entities which are “empowered by the law of that State to exercise elements of governmental authority”;⁵⁵¹
- c. persons acting on the instructions or under the direction or control of the State in carrying out the conduct.⁵⁵² The ICJ has confirmed that this is a rule of customary international law;⁵⁵³ and

⁵⁴⁷ See, e.g., *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v Uganda)*, *Reparations, Judgment of 9 February 2022*, I.C.J. Reports 2022, p. 13, paragraphs 70 and 98, Annex 281; *Ilasçu and others v Russia and Moldova*, [2004] ECHR 318, paragraph 320 (“Another recognised principle of international law is that of State responsibility for the breach of an international obligation, as evidenced by the work of the ILC”), Annex 291.

⁵⁴⁸ See Articles on Responsibility of States, Article 4, Annex 438. This includes the responsibility of an insurrectional movement that becomes the new government (see Articles on Responsibility of States, Article 10, Annex 438).

⁵⁴⁹ *Case of “The Last Temptation of Christ” (Olmedo Bustos et al., v Chile)*. Merits, *Reparations and Costs*. Judgment of February 5, 2001. Series C No. 73, paragraph 72, Annex 241. See also, e.g., *Case of Juan Humberto Sánchez v Honduras*. Preliminary Objections, Merits, *Reparations and Costs*. Judgment of June 7, 2003. Series C No. 99, paragraph 142 (“according to the rules of International Human Rights Law, action or omission by any public authority is an act attributable to the State, on that involves its responsibility under the terms set forth in [the American] Convention [on Human Rights]”), Annex 245; *Case of the Gómez Paquiyauri Brothers v Peru*. Judgment of July 8, 2004. Series C No. 110, Separate Opinion of the Judge A.A. Cançado Trindade, paragraph 14 (“in my opinion there can be no doubt that, in International Human Rights Law, the international responsibility of the State arises at the very moment of violation of the rights of the human person, that is, as soon as the international wrongful act attributable to the State occurs. In the framework of the Inter-American Convention on Human Rights, the international responsibility of the State may be generated by acts or omissions of any branch or body or agent of the State, whatever its or his hierarchy, that violates the rights protected by the Convention. This has been the clear understanding of the Court, which today constitutes its *jurisprudence constante* on the matter”), Annex 246.

⁵⁵⁰ See *Difference Relating to Immunity from Legal Process of a Special Rapporteur of the Commission on Human Rights*, *Advisory Opinion of 29 April 1999*, I.C.J. Reports 1999, p. 62, paragraph 62, Annex 268.

⁵⁵¹ Articles on Responsibility of States, Article 5, Annex 438. Conduct of organs placed at the disposal of a State may also be attributed to a State (see Articles on Responsibility of States, Article 6, Annex 438).

⁵⁵² See Articles on Responsibility of States, Article 8, Annex 438.

⁵⁵³ See *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v Serbia and Montenegro)*, *Judgment of 26 February 2007*, I.C.J. Reports 2007, p. 43,

- d. any actors when States adopt or acknowledge their conduct as their own.⁵⁵⁴
256. This Court has decided that States are obligated to refrain from unlawfully polluting through industrial waste “from State-owned facilities.”⁵⁵⁵
257. Treaty bodies (including those whose findings are binding on States) confirm that conduct of State-owned entities causing harm to the environment is attributable to States. For example:
- a. the Committee on Economic, Social and Cultural Rights noted that States should refrain from unlawfully polluting through industrial waste “from State-owned facilities”;⁵⁵⁶
 - b. the African Commission on Human Rights determined that the Government of Nigeria had violated human rights, even though the acts were conducted by its State-owned oil company;⁵⁵⁷ and
 - c. the ECtHR held a State responsible for the conduct of coal facilities owned by the State, given the State’s involvement in and presumed awareness of their operations.⁵⁵⁸ Similarly, the ECtHR explicitly considered that the State should be held responsible for the acts or omissions of a State-owned mine.⁵⁵⁹
258. Further, the UN Human Rights Council recognises that an abuse of human rights committed by a business enterprise that is controlled by the State may entail a violation of the State’s own international law obligations.⁵⁶⁰

paragraph 398, Annex 271, citing Articles on Responsibility of States, Article 8, Annex 438. The ICJ already decided in 1986 that States may be responsible in this way (*see e.g., Military and Paramilitary Activities in and against Nicaragua (Nicaragua v United States of America), Merits, Judgment of 27 June 1986, I.C.J. Reports 1986, p. 14, paragraph 109, Annex 262*).

⁵⁵⁴ See Articles on Responsibility of States, Article 11, Annex 438.

⁵⁵⁵ IACtHR 2017 Advisory Opinion, paragraph 117, Annex 235.

⁵⁵⁶ General Comment No. 14, paragraph 34, Annex 235. *See also* ICESCR, Article 12, Annex 10.

⁵⁵⁷ *See* African Commission Decision on Communication 155/96, paragraphs 66, 54-68, Annex 324.

⁵⁵⁸ *See Case of Dubetska and Others v Ukraine* [2011] ECHR 13, paragraphs 120, 123, Annex 296.

⁵⁵⁹ *See Dimitar Yordanov v Bulgaria* [2018] ECHR 9, paragraph 60, Annex 298.

⁵⁶⁰ *See* Report of the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie, A/HRC/17/31, 21 March 2011, Annex, principle 4, Annex 412. The UN Human Rights Council adopted the UN Guiding Principles on

259. The obligation to provide full reparation for acts and omissions attributable to the State is further supported by judicial decisions. In the *Trail Smelter Arbitration*, for example, Canada was required to compensate the United States of America for pollution by fumes caused in Canada's territory by a corporation.⁵⁶¹ Canada assumed international responsibility for the corporation's damage to the United States of America.⁵⁶²
260. This obligation is further supported by the most highly qualified publicists. For example, as noted above, the ILC considers that the acts and omissions of third parties (such as State-owned entities) may be attributable to States.⁵⁶³

J. States must offer other redress for damage due to climate change by *inter alia* contributing to climate change funds, offering other financial resources and ensuring transfers of technology

261. **Section VI.E** above discusses the obligation of States to assist other States to mitigate and repair climate change. Further to that Section, this Section sets out how States must do so through: (a) the financial contributions that States should make to redress the damage caused by the climate emergency, regardless of whether they are liable for an internationally wrongful act (*see* sub-section (i)); (b) the obligations of States to ensure the transfer of technology to other States affected by the climate emergency (*see* sub-section (ii)); and (c) investment in research on climate change (*see* sub-section (iii)).
- (i) States should contribute to collective climate change funds and offer other financial resources to other States affected by the climate emergency
262. States should act to guarantee the right to redress for climate change damage by contributing to collective climate change funds. Such climate change funds have been established for developing States in light of the climate emergency through the Paris

Business and Human Rights by unanimous consent (*see* UN Human Rights Council Resolution 17/4 (2011), A/HRC/RES/17/4, 16 June 2011, paragraph 1, Annex 116).

⁵⁶¹ *See Trail Smelter Arbitration*, page 1933, Annex 300.

⁵⁶² *See Trail Smelter Arbitration*, page 1963, Annex 300.

⁵⁶³ *See* Commentary to the Articles on Responsibility of States, Article 5, page 43, paragraph 3, Annex 438 Bis.

Agreement and other international conventions and initiatives and reflect considerations of equity, justice and sustainability.

263. Agreements relating to both financial assistance and collective climate change compensation are well-established in international environmental law. In the context of climate change, they reflect the principle of common but differentiated responsibilities⁵⁶⁴ and follow from the obligation to cooperate to conserve, protect and restore the environment.⁵⁶⁵ They also follow from the obligations under international law to provide full reparation and to compensate for loss and damage, taking into account the situation of vulnerable or specially affected States including small island developing States and the particular situations of impacted peoples.⁵⁶⁶ Respect for these obligations is of utmost importance for Barbados, a small island developing State that has been greatly affected by the negative impacts of climate change and will need to expend considerable funds to ensure redress and mitigation.⁵⁶⁷
264. As the UNFCCC and Paris Agreement confirm, the global nature of climate change calls for the widest possible cooperation, with developed States to take the lead in combating climate change and its adverse effects.⁵⁶⁸ As part of effective action against anthropogenic climate change, the UNFCCC enshrines specific obligations on developed country parties and other developed parties:
- a. to provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations;
 - b. to provide such financial resources needed by the developing country Parties to meet the agreed full incremental costs of implementing agreed covered measures, with implementation taking into account the need for adequacy and predictability in the flow of funds and the importance of appropriate burden sharing among developed country Parties; and

⁵⁶⁴ See Section VI.E.

⁵⁶⁵ See Section VI.F.

⁵⁶⁶ See Section VI.K.

⁵⁶⁷ See Section III.C.

⁵⁶⁸ See UNFCCC, Preamble and Article 3(1), Annex 50; Paris Agreement, Article 9(3), Annex 93.

- c. to assist developing State parties that are particularly vulnerable to the adverse effects of climate change in meeting cost of adaptation to those adverse effects.⁵⁶⁹
265. The Paris Agreement further enshrines this by articulating express obligations on developed country Parties to provide financial resources to assist developing country Parties with respect to both mitigation and adaptation, recognising this to form part of existing obligations under the UNFCCC.⁵⁷⁰
266. The above obligations are operationalised in practice in a number of ways, including through climate change funds. Established in 2001 at the 7th session of the Conference of the Parties to the UNFCCC and officially launched in 2007, the Adaptation Fund provides adaptation-related funding to developing countries to the Kyoto Protocol and Paris Agreement that are particularly susceptible to climate change adverse impacts.⁵⁷¹ It holds particular importance for the Caribbean region, which is particularly vulnerable to climate change impacts, including increasing extreme weather patterns.
267. Following approval by the Conference of the Parties to the UNFCCC in 2011, the Green Climate Fund was launched with the aim of supporting developing countries within the broader global climate framework.⁵⁷² Barbados was honoured in 2019 to

⁵⁶⁹ See UNFCCC, Articles 4(3) and 4(4), Annex 50.

⁵⁷⁰ See Paris Agreement, Article 9(1), Annex 93.

⁵⁷¹ See Funding under the Kyoto Protocol, Decision 10/CP.7, Report of the Conference of the Parties on Its Seventh Session, held at Marrakesh from 29 October to 10 November 2001, Addendum, Part Two: Action taken by the Conference of the Parties, FCCC/CP/2001/13/Add.1, 21 January 2002, paragraph 1, Annex 158. See also Adaptation Fund, Decision 1/CMP.3, Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol on its third session, held in Bali from 3 to 15 December 2007, FCCC/KP/CMP/2007/9/Add.1, 14 March 2008, paragraphs 1 and 4, Annex 161. See also Matters relating to the Adaptation Fund, Decision 13/CMA.1, Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on the third part of its first session, held in Katowice from 2 to 15 December 2018, FCCC/PA/CMA/2018/3/Add.2, 15 December 2018, paragraph 1, Annex 180.

⁵⁷² See Governing instrument for the Green Climate Fund, Annex, Report of the Conference of the Parties on its seventeenth session, held in Durban from 28 November to 11 December 2011, FCCC/CP/2011/9/Add.1, 15 March 2012, paragraphs 2 (“In the context of sustainable development, the Fund will promote the paradigm shift towards low-emission and climate-resilient development pathways by providing support to developing countries to limit or reduce their greenhouse gas emissions and to adapt to the impacts of climate change, taking into account the needs of those developing countries particularly vulnerable to the adverse effects of climate change”) and 3 (“The Fund will play a key role in channelling new, additional, adequate and predictable financial resources to developing countries”), Annex 164.

launch the first Green Climate Fund-financed project to move to implementation.⁵⁷³

In Barbados, the Green Climate Fund has already contributed an estimated USD 151.5 million to date in funding and facilitated important initiatives, including in green finance and water sector resilience.⁵⁷⁴

268. Other key climate change funds include the Special Climate Change Fund, established *inter alia* to assist developing country economic diversification,⁵⁷⁵ and the Least Developed Countries Fund, established to support adaptation in least developed countries.⁵⁷⁶ These funds will be supplemented in the future by the establishment of a loss and damage fund on which States reached historic and unanimous consensus at the 27th Conference of the Parties to the UNFCCC. These new funding arrangements will be established:

for assisting developing countries that are particularly vulnerable to the adverse effects of climate change, in responding to loss and damage, including with a focus on addressing loss and damage by providing and assisting in mobilizing new and additional resources⁵⁷⁷

and acknowledging:

the urgent and immediate need for new, additional, predictable and adequate financial resources to assist developing countries that are particularly vulnerable to the adverse effects of climate change in responding to economic and non-economic loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, especially in the

⁵⁷³ See “Barbados launches first Caribbean climate resilience project”, *Green Climate Fund*, 13 May 2019, Annex 181.

⁵⁷⁴ See “Barbados”, *Green Climate Fund*, 2023, Annex 233.

⁵⁷⁵ See Funding under the Convention, Decision 7/CP.7, Report of the Conference of the Parties on its Seventh Session, held at Marrakesh from 29 October to 10 November 2001, FCCC/CP/2001/13/Add.1, 21 January 2002, paragraph 2, Annex 159.

⁵⁷⁶ See Funding under the Convention, Decision 7/CP.7, Report of the Conference of the Parties on its Seventh Session, held at Marrakesh from 29 October to 10 November 2001, FCCC/CP/2001/13/Add.1, 21 January 2002, paragraph 6 (“Decides also that a least developed countries fund shall be established, which shall be operated by an entity entrusted with the operation of the financial mechanism, under the guidance of the Conference of the Parties, to support a work programme for the least developed countries. This work programme shall include, *inter alia*, national adaptation programmes of action in accordance with Section II, ‘Implementation of Article 4, paragraph 9, of the Convention’, of decision 5/CP.7”), Annex 159.

⁵⁷⁷ Funding arrangements for responding to loss and damage associated with the adverse effects of climate change, including a focus on addressing loss and damage, Decision 2/CP.27, Report of the Conference of the Parties on its Twenty-Seventh Session, held in Sharm el-Sheikh from 6 to 20 November 2022, FCCC/CP/2022/10/Add.1, 17 March 2023, paragraph 2, Annex 190.

context of ongoing and ex post (including rehabilitation, recovery and reconstruction) action.⁵⁷⁸

269. Barbados is proud to have served on the Transitional Committee established for the operationalisation of the new funding arrangements and fund for assisting developing countries that are particularly vulnerable to the adverse effects of climate change in responding to loss and damage. Barbados's term, as one of the three designated developing country party representatives for Latin America and the Caribbean on the Transitional Committee, runs from July to December 2023.⁵⁷⁹
270. Both the new loss and damage fund and other obligations assumed nearly universally by States under the UNFCCC and its associated Protocols have long-standing roots in international law. For example, the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage notes "the dangers of pollution posed by the world-wide maritime carriage of oil in bulk," "the need to ensure that adequate compensation is available to persons who suffer damage caused by" such pollution and "the need to elaborate a compensation and indemnification system . . . with a view to ensuring that full compensation will be available to victims of oil pollution incidents."⁵⁸⁰ Contributions to the fund are to be made by all persons receiving crude oil and fuel oil in Contracting States.⁵⁸¹ Consistent with the principle of common but differentiated responsibilities, the Convention and its successor Protocol set contributions in respect of each Contracting State with reference to the total tonnage of crude oil and fuel oil received by a relevant individual or corporate

⁵⁷⁸ Funding arrangements for responding to loss and damage associated with the adverse effects of climate change, including a focus on addressing loss and damage, Decision 2/CP.27, Report of the Conference of the Parties on its Twenty-Seventh Session, held in Sharm el-Sheikh from 6 to 20 November 2022, FCCC/CP/2022/10/Add.1, 17 March 2023, paragraph 1, Annex 190.

⁵⁷⁹ See "Membership - Transitional Committee", *United Nations Climate Change*, 9 October 2023, Annex 234.

⁵⁸⁰ International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Preamble, Annex 15. See also 1992 Protocol to Amend the Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Annex 54. See also Protocol of 2003 to the International Convention on the establishment of an international fund for compensation for oil pollution damage, 1992, 16 May 2003, 3432 UNTS 1, Annex 78.

⁵⁸¹ See International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Articles 10, 11 and 12(2), Annex 15. See also 1992 Protocol to Amend the Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Annex 54.

person, including a State or any of its constituent subdivisions.⁵⁸² In addition to paying compensation to victims of oil pollution damage, the fund provides assistance to Contracting States threatened or affected by pollution wishing to take measures against it, including in the form of personnel or material aid, credit facilities or other assistance.⁵⁸³

271. In 1990, the London Amendment to the Montreal Protocol established the Multilateral Fund for the Implementation of the Montreal Protocol for the “purposes of providing financial and technical cooperation”⁵⁸⁴ and on the basis that the mechanism would “meet all agreed incremental costs of such Parties in order to enable their compliance with the control measures” for ozone-depleting substances under the Montreal Protocol.⁵⁸⁵ Since its establishment in 1991, the Multilateral Fund has disbursed more than USD 3.6 billion in grant funding to help developing countries decrease consumption and trade of ozone-depleting substances.⁵⁸⁶
272. Consistent with the principle of common but differentiated responsibilities, the 196 Contracting Parties to the Convention on Biological Diversity have committed to provide relevant financial support and incentives in accordance with each Contracting Party’s capabilities.⁵⁸⁷ To that end, developed country Parties are obliged to provide new and additional financial resources to enable developing country Parties to meet the agreed full incremental costs of implementing measures under the Convention.⁵⁸⁸ The Convention also establishes a financial mechanism to provide financial resources to developing country Parties, with contributions to take into

⁵⁸² See International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Articles 10, 11 and 12(2), Annex 15. See also 1992 Protocol to Amend the Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Articles 10 and 12, Annex 54.

⁵⁸³ See International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Article 4(7), Annex 15.

⁵⁸⁴ Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, 29 June 1990, 1598 UNTS 469, Article 10(1), Annex 43.

⁵⁸⁵ Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, 29 June 1990, 1598 UNTS 469, Article 10(1), Annex 43.

⁵⁸⁶ See “A global challenge, universal solidarity”, *Multilateral Fund for the Implementation of the Montreal Protocol*, May 2023, page 2, Annex 432.

⁵⁸⁷ See Convention on Biological Diversity, Article 20, Annex 51.

⁵⁸⁸ See Convention on Biological Diversity, Article 20(2), Annex 51.

account the need for predictability, adequacy and timely flow of funds.⁵⁸⁹ Along similar lines, the UNCCD commits its Contracting Parties to promote the availability of financial mechanisms and to encourage such mechanisms to maximise available funding for developing country Parties affected by serious drought and/or desertification.⁵⁹⁰

273. Consistent with established obligations of reparations, compensation, cooperation and environmental protection (including extraterritorially),⁵⁹¹ States, in particular developed States, should act by contributing to such climate change and environmental protection funds to guarantee the right to redress for damage caused in relation to the climate emergency.
274. As explained further in **Section VI.K** below, the financial assistance offered by developed countries including through climate change funds must take into account the circumstances of affected States and peoples. This includes the particular situation of small island developing States such as Barbados, a small country that is especially vulnerable to rising sea levels, natural disasters such as hurricanes and other adverse climate change effects.
275. In the context of the particular situation of Barbados, Barbados is proud to have achieved a progressively higher Human Development Index (“**HDI**”) ranking – most recently at 70th out of 191 countries, categorising Barbados as a “High” human development country.⁵⁹² However, while Barbados is proud to have achieved this favourable HDI ranking, the HDI’s logarithmic focus on income and gross domestic product is inadequate and projects an incomplete picture of Barbados’s development challenges, particularly in the context of climate change.⁵⁹³ Rather, climate change funds and other forms of financial assistance by developed countries must take into

⁵⁸⁹ See Convention on Biological Diversity, Article 21(1), Annex 51.

⁵⁹⁰ See UNCCD, Article 21(1), Annex 61.

⁵⁹¹ See Sections VI.B-VI.G.

⁵⁹² See “Barbados: Human development summary”, *United Nations Development Programme*, 8 September 2022, Annex 430.

⁵⁹³ See Statement by Senator the Honourable Darcy Boyce Minister in the Prime Minister’s Office Barbados, General Debate of the Third International Conference on Financing for Development, 15 July 2015, Addis Ababa (“**Statement by Senator the Honourable Darcy Boyce Minister**”), pages 3 and 4, Annex 168.

account the vulnerability and resilience challenges, including in respect of climate change, facing Barbados. Specifically, highly-indebted countries such as Barbados require support to regain access to the types of financing suitable for maintaining hard-won social and economic gains.⁵⁹⁴ Such considerations should be mainstreamed as part of innovative and non-traditional measures to address the high debt burdens facing Barbados and other vulnerable small island developing States as part of broader strategies for successful debt management and unlocking economic growth and other developmental goals.⁵⁹⁵ Only such holistic approaches that look beyond mere income levels will ensure appropriate, inclusive and equitable financial assistance to States and peoples that are particularly affected by and vulnerable to the adverse effects of climate change.

(ii) States should ensure the transfer of technology to other States affected by the climate emergency

276. States have the obligation to ensure the transfer of technology to other States affected by the climate emergency.⁵⁹⁶ As the UN High Commissioner for Human Rights noted, “States should share resources, knowledge and technology in order to address climate change” and “[t]echnology transfers between States should take place as needed and appropriate to ensure a just, comprehensive and effective international response to climate change” with a recommendation of “[e]quitable access to technology, including, if necessary, the lowering of intellectual property standards and facilitation of technology transfer.”⁵⁹⁷
277. The IPCC defined the term “transfer of technology” in its Special Report on Methodological and Technological Issues in Technology Transfer as “a broad set of processes covering the flows of know-how, experience and equipment for mitigating

⁵⁹⁴ See Statement by Senator the Honourable Darcy Boyce Minister, pages 3 and 4, Annex 168.

⁵⁹⁵ See Statement by Senator the Honourable Darcy Boyce Minister, page 4, Annex 168.

⁵⁹⁶ See, e.g., UNFCCC, Article 4(1)(c), Annex 50; Paris Agreement, Article 10, Annex 93; OAS Charter, Article 38, Annex 2; Stockholm Declaration, Principle 20, Annex 153; Rio Declaration, Principle 9, Annex 157.

⁵⁹⁷ “Understanding Human Rights and Climate Change”, Submission of the Office of the High Commissioner for Human Rights to the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, 2015, pages 3, 4 and 27, Annex 419. See also, e.g., Universal Declaration of Human Rights, Article 27, Annex 100; ICESCR, Article 15, Annex 10; American Declaration of the Rights and Duties of Man, Article XIII, Annex 98; Protocol of San Salvador, Article 14, Annex 1 Bis.

and adapting to climate change amongst different stakeholders such as governments, private-sector entities, financial institutions, non-governmental organizations (NGOs) and research/education institutions.”⁵⁹⁸ In the transfer of technology process that takes place across borders, there are two parties to this process: providers and recipients. The providers are often from developed States, whereas recipients are often in developing States.⁵⁹⁹

278. The transfer of technology for adaptation to climate change is an important element of reducing vulnerability to climate change.⁶⁰⁰ It represents one of the most vital supports to the successful dissemination of green innovations within and among States.⁶⁰¹ It aids developing States to meet their development needs and comply with international climate commitments.⁶⁰²
279. Climate emergencies are “circumstances where severe consequences of climate change occur too rapidly to be significantly averted by even immediate mitigation efforts.”⁶⁰³ The environmental effect of climate change includes droughts, expansion of deserts and, in warm climatic conditions, the heat from the air aid storms in absorbing more heat, resulting in them becoming faster and turning into violent hurricanes.⁶⁰⁴ As a result, the effect climate change imposes on humans represents a significant threat to human prosperity and human life.⁶⁰⁵ Technology transfer plays a pivotal role in climate change policies as it is essential for both mitigating and adapting to climate change, since both aspects rely on the adoption and sharing of technological advancements. The transfer of technology is an integral and inseparable

⁵⁹⁸ “Special Report – Methodological and Technological issues in Technological Transfer. Summary for Policy Makers”, *Intergovernmental Panel on Climate Change*, 2000, page 3 Annex 372.

⁵⁹⁹ See Z. Yang, “An Analysis of Technology Transfer as a Response to Climate Change”, *Copenhagen Consensus on Climate*, 2009 (“**An Analysis of Technology Transfer as a Response to Climate Change**”), page 6, Annex 375.

⁶⁰⁰ See C. Karakosta et al., “Technology transfer through climate change: Setting a sustainable energy pattern”, *Renewable and Sustainable Energy Reviews*, 2010, page 1547, Annex 377.

⁶⁰¹ See R. Burrell et al., “Intellectual Property Rights, Climate Technology Transfer and Innovation in Developing Countries”, *INET Oxford Working Paper No. 2023-14*, 2023, pages 79, Annex 491.

⁶⁰² See R. Burrell et al., “Intellectual Property Rights, Climate Technology Transfer and Innovation in Developing Countries”, *INET Oxford Working Paper No. 2023-14*, 2023, page 60, Annex 491.

⁶⁰³ J. J. Blackstock et al., *Climate Engineering Responses to Climate Emergencies* (Novim, 2009), page 1, Annex 376.

⁶⁰⁴ See Section IV.

⁶⁰⁵ See Section IV.

element within any policy approach addressing greenhouse gas mitigation and climate change adaptation.⁶⁰⁶ Supporting greenhouse gas mitigation efforts in developing States with technology transfers from developed States leads to incremental benefits that play a significant role in addressing the complex challenge of climate change, offering opportunities for developing States to achieve their climate obligations.⁶⁰⁷

280. In the UNFCCC, developed countries agreed generally to “take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how” to developing countries, and to “support the development and enhancement of [their] endogenous capacities and technologies.”⁶⁰⁸ On technology transfer in particular, Articles 4(1)I, 4(3), 4(5), and 4(7) establish special and differentiated treatment for developing countries. Article 4(2) establishes commitments that only apply to “developed countries and others in Annex I.” The UNFCCC also establishes a group of Annex II countries that have financial and technological support obligations on top of mitigation commitments under Article 4 generally. These countries are the traditional OECD group of early industrialisers. However, apart from the UNFCCC, there are other instruments which recognise the State’s duty towards ensuing free flowing technology transfer to deal with issues of climate change.⁶⁰⁹
281. Moreover, in 2010, the Conference of the Parties to the UNFCCC established the Technology Mechanism with the objective of accelerating and enhancing climate technology development and transfer. It consists of two complementary bodies that

⁶⁰⁶ See *An Analysis of Technology Transfer as a Response to Climate Change*, preface, Annex 375.

⁶⁰⁷ See *An Analysis of Technology Transfer as a Response to Climate Change*, page 11, Annex 375.

⁶⁰⁸ UNFCCC, Article 4(5), Annex 50.

⁶⁰⁹ See Kyoto Protocol, Article 10(c), Annex 69; Paris Agreement, Articles 10 and 13(9), Annex 93; Convention on Biological Diversity, Articles 16-19, Annex 51; Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, 1522 UNTS 3, Article 5(2), Annex 39; Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 22 March 1989, 1673 UNTS 57, Article 10(2)(b), Annex 40; Convention on the Protection of the Black Sea against Pollution, 21 April 1992, 1764 UNTS 3, Article 15(6), Annex 49; Amendments to the Convention for the Protection of the Mediterranean Sea Against Pollution (the title of the Convention was amended as: Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean), 10 June 1995, OJ L 322, Article 4(4)(b), Annex 62; Convention to ban the importation into Forum island countries of hazardous and radioactive wastes and to control the transboundary movement and management of hazardous wastes within the South Pacific Region (Waigani Convention), 16 September 1995, 2161 UNTS 91, Article 10(2)(d), Annex 64.

work together – the Technology Executive Committee and the Climate Technology Centre and Network. The mechanism will also serve the Paris Agreement.

282. Governments recognise the importance of technology transfer in dealing with problems of climate change. The final ministerial declaration from the second World Climate Conference in December 1990 stated that “[t]here is a need, to meet the requirements of developing countries, that adequate and additional financial resources be mobilized and the best available environmentally sound technologies be transferred expeditiously on a fair and most favourable basis.”⁶¹⁰ Much of State practice demonstrates an obligation to ensure technology transfers are thus mandated by legal and institutional frameworks.
283. Apart from the UNFCCC and the Paris Agreement, there are other initiatives that reiterate the need for and importance of technology transfer in the context of climate change action. Among other initiatives, it is worth noting the US Climate Technology Partnership – a continuation of the former Technology Cooperation Agreement Pilot Project, active in Brazil, China, Egypt, Korea, Mexico and the Philippines. This initiative focuses on identifying country-driven technology priorities and assisting partner countries in “implementing integrated market transformation strategies” for these priority technologies.⁶¹¹

(iii) States should invest in research on climate change

284. Small island developing States, like Barbados, are at risk of, among other things, flooding from sea level rises and natural disasters caused by climate change.⁶¹² Full redress requires not only financing for loss and damage caused by climate change and for the implementation of mitigation and adaption policies. It also requires investment in research on climate change to find methods for adapting to the adverse effects of climate change and for mitigating those effects.

⁶¹⁰ Report of the Secretary General, Protection of global climate change for present and future generations, Progress achieved in the implementation of resolution 44/207 on protection of global climate for present and future generations of mankind, A/45/696/ADD.1, 8 November 1990, page 17, Annex 407.

⁶¹¹ “International energy technology collaboration and climate change mitigation”, *OECD Environment Directorate & International Energy Agency*, COM/ENV/EPOC/IEA/SLT(2004)1, 2004, pages 23-24, Annex 448.

⁶¹² See Section IV.

- b. As discussed in **Section VI.F**, States must cooperate to protect and preserve the climate system and other parts of the environment. This includes investing in research on climate change and methods for adapting to it and mitigating its effects. In international conventions, States agree to invest in research on climate change. For example:
- a. under the Paris Agreement, 194 States and the European Union agree to share information and good practices on adaption actions;⁶¹³ strengthen scientific knowledge on climate, including research, systematic observation of the climate system and early warning systems;⁶¹⁴ and assist developing States in identifying effective adaptation practices;⁶¹⁵
 - b. under the UNFCCC, 197 States and the European Union agree to promote and cooperate in scientific and other research related to the climate system,⁶¹⁶ including by “financing research”;⁶¹⁷ and
 - c. under the Convention on Biological Diversity, 195 States and the European Union agree to promote and encourage research that contributes to the conservation and sustainable use of biological diversity, particularly in developing countries.⁶¹⁸
285. States must therefore proactively invest funds in research on climate change, including adaptation to it and mitigation.

K. Full reparation and assistance must take account of the circumstances of affected States, peoples and individuals

286. This Section explains that under international law full reparation and other assistance to address climate change must take account of: (a) the circumstances of affected States, including in particular small island States (*see* sub-section (i)); and (b) peoples

⁶¹³ *See* Paris Agreement, Article 7(7)(a), Annex 93.

⁶¹⁴ *See* Paris Agreement, Article 7(7)(c), Annex 93.

⁶¹⁵ *See* Paris Agreement, Article 7(7)(d), Annex 93.

⁶¹⁶ *See* UNFCCC, Article 4(1)(g), Annex 50.

⁶¹⁷ UNFCCC, Article 5(a), Annex 50.

⁶¹⁸ *See* Convention on Biological Diversity, Articles 12(b) and (c), Annex 51.

and individuals of present and future generations affected by the adverse effects of climate change (*see* sub-section (ii)).

- (i) Full reparation and assistance must take account of the particular situation of States, including in particular, small island developing States that are injured or specially affected by or are particularly vulnerable to the adverse effects of climate change to the adverse effects of climate change

- 287. Full reparation and other assistance to address climate change must take account of the vulnerable position of small island States due to the significant impact of climate change on such States.
- 288. International environmental law treaties and other instruments repeatedly emphasise the need to offer in particular assistance to small island States as well as to developing States, which are both particularly vulnerable to the adverse effects of climate change.
- 289. The UNFCCC preamble recognises that “low-lying and other small island countries ... are particularly vulnerable to the adverse effects of climate change.”⁶¹⁹ Article 4(9) of the UNFCCC gives effect to this recognition by requiring that States “take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding.”⁶²⁰ Article 4(8) of the UNFCCC likewise requires that States “especially consider the adverse effects of climate change and/or the impact of the implementation of response measures on *inter alia* small island States.”⁶²¹
- 290. The Paris Agreement similarly contains provisions singling out the needs of developing States and small island developing States in the context of resources to address the adverse effects of climate change. It first recognises “the specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, as provided for in the [UNFCCC].”⁶²² The agreement then provides that the provision of scaled-up financial

⁶¹⁹ UNFCCC, Preamble, page 4, Annex 50.

⁶²⁰ UNFCCC, Article 4(9), Annex 50.

⁶²¹ UNFCCC, Article 4(8)(a), Annex 50.

⁶²² Paris Agreement, page 1, Annex 93. The Paris Agreement also invites “least developed countries and small island developing States may prepare and communicate strategies, plans and actions for low greenhouse gas emissions development reflecting their special circumstances” (Paris Agreement, Article 4(5), Annex 93).

resources should take into account *inter alia* “the priorities and needs of developing country Parties especially those that are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the least developed countries and small island developing States.”⁶²³ The Paris Agreement also notes that the institutes serving the agreement “shall aim to ensure efficient access to financial resources through simplified approval procedures and enhanced readiness support for developing country Parties, in particular for the least developed countries and small island developing States.”⁶²⁴ Further, capacity-building under the Paris Agreement is meant to enhance the capacity of this same set of States.⁶²⁵

291. States also recognise the importance of providing damages to States particularly affected by climate change through decisions taken at the Conference of the Parties, including:
- a. the Bali Action Plan, which contains a provision similarly singling out the interest of “countries that are particularly vulnerable to the adverse effects of climate change.”⁶²⁶ The comprehensive process to enable the full, effective and sustained implementation of the UNFCCC, launched by the Bali Action Plan, identified as one of its topics “Enhanced Action on Adaptation,” including “means to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change”;⁶²⁷
 - b. the Cancun Agreement, under which States agreed to establish a “work programme in order to consider . . . approaches to address loss and damage

⁶²³ Paris Agreement, Article 9(4), Annex 93.

⁶²⁴ Paris Agreement, Article 9(9), Annex 93.

⁶²⁵ See Paris Agreement, Article 11, Annex 93.

⁶²⁶ Bali Action Plan, Decision 1/CP.13, Report of the Conference of the Parties on its thirteenth session, held in Bali from 3 to 15 December 2007, Addendum Part Two: Action taken by the Conference of the Parties at its thirteenth session, FCCC/CP/2007/6/Add.1, 14 March 2008, paragraph 1(c)(iii), Annex 162. See also paragraph 1(c)(ii).

⁶²⁷ Bali Action Plan, Decision 1/CP.13, Report of the Conference of the Parties on its thirteenth session, held in Bali from 3 to 15 December 2007, Addendum Part Two: Action taken by the Conference of the Parties at its thirteenth session, FCCC/CP/2007/6/Add.1, 14 March 2008, para 1(c)(iii), Annex 162.

associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change”;⁶²⁸ and

- c. the Warsaw International Mechanism associated with Climate Change Impacts was created in 2013 “to address loss and damage associated with impacts of climate change, including extreme events and slow onset events, in developing countries that are particularly vulnerable to the adverse effects of climate change.”⁶²⁹

292. Moreover, it is in accordance with the international law principle of equity and the principle of fairness that reparations, compensation and other resources to address the adverse effects of climate change take account of the particular circumstances of small island States. As **Section IV.B** above describes, these States are especially vulnerable to the negative impact of climate change and suffer its disastrous consequences most greatly and immediately. Yet, they have relatively not contributed nearly in the same proportion to the occurrence of climate change. As such, it is fair and equitable that the needs of small island States in addressing climate change are considered appropriately.

⁶²⁸ The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, Decision 1/CP.16, Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010, Addendum, Part Two: Action taken by the Conference of the Parties at its sixteenth session, FCCC/CP/2010/7/Add.1, 15 March 2011, paragraphs 26 and 25 (“Recognizes the need to strengthen international cooperation and expertise in order to understand and reduce loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events” (footnote omitted)), Annex 163.

⁶²⁹ Warsaw international mechanism for loss and damage associated with climate change impact, Decision 2/CP.19, Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013 Addendum Part two: Action taken by the Conference of the Parties at its nineteenth session, FCCC/CP/2013/10/Add.1, 31 January 2014, paragraph 1, Annex 166. The same decision that established the Warsaw International Mechanism also called on States “to work through the United Nations and other relevant institutions, specialized agencies and processes...to promote coherence at all levels in approaches relevant to addressing loss and damage” (Warsaw international mechanism for loss and damage associated with climate change impact, Decision 2/CP.19, Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013 Addendum Part two: Action taken by the Conference of the Parties at its nineteenth session, FCCC/CP/2013/10/Add.1, 31 January 2014, paragraph 12, Annex 166).

- (ii) Full reparation and assistance must take account of the particular situations of peoples and individuals of present and future generations affected by the adverse effects of climate change

293. As discussed in **Section IV.B**, certain peoples and individuals are particularly affected by the adverse effects of climate change. The international community recognises that any reparation and compensation must take account of the particular situations of those affected by these adverse effects. This Section explains, in turn, that States party to the American Convention on Human Rights must take account of present generations and also future generations for full reparation and compensation.
294. First, full reparation and compensation must take account of the particular situations of peoples and individuals of present generations. States party to the American Convention on Human Rights must take account of all damage arising from their actions, even where that damage is either to their own peoples and individuals or those of other States.
295. This Court already recognised that environmental problems may be felt with greater intensity by certain groups in vulnerable situations, such as indigenous peoples and communities that depend economically or for their survival on environmental resources.⁶³⁰ Therefore, States must confront such vulnerabilities based on the principles of equality and non-discrimination.⁶³¹
296. States commit in international conventions to take account of peoples and individuals affected by the adverse effects of climate change. For example:
- a. under the Paris Agreement, 194 States and the European Union agree that they:
- should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well

⁶³⁰ See *Case of the Indigenous Communities of the Lhaka Honhat Association (Our Land) v Argentina*, paragraph 209, Annex 252 (citing the IACtHR 2017 Advisory Opinion, Annex 235).

⁶³¹ See *Case of the Indigenous Communities of the Lhaka Honhat Association (Our Land) v Argentina*, paragraph 209, Annex 252 (citing the IACtHR 2017 Advisory Opinion, Annex 235).

as gender equality, empowerment of women and intergenerational equity.⁶³²

- b. under the Stockholm Convention on Persistent Organic Pollutants, 184 States recognise the need to take account of the particular circumstances of women and indigenous peoples, acknowledging:

the health concerns, especially in developing countries, resulting from local exposure to persistent organic pollutants, in particular impacts upon women and, through them, upon future generations,

[and] that the Arctic ecosystems and indigenous communities are particularly at risk because of the biomagnification of persistent organic pollutants and that contamination of their traditional foods is a public health issue.⁶³³

- c. under the Convention on Biological Diversity, 195 States and the European Union acknowledge the particular circumstances of women and indigenous peoples:

the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components,

. . . also the vital role that women play in the conservation and sustainable use of biological diversity and affirming the need for the full participation of women at all levels of policy-making and implementation for biological diversity conservation.⁶³⁴

- d. under the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, 14 States recognise that, in giving effect to the duty to cooperate in the establishment of conservation and management measures for fishery resources:

⁶³² Paris Agreement, page 2, Preamble, recital 11, Annex 93.

⁶³³ Stockholm Convention on Persistent Organic Pollutants, 22 May 2001, 2256 UNTS 119, Preamble, recitals 2-3, Annex 76.

⁶³⁴ Convention on Biological Diversity, Preamble, recitals 12-13, Annex 51.

the members of the Commission shall take into account the special requirements of developing State Contracting Parties in the region, in particular the least developed among them and small island developing States, and territories and possessions in the region, in particular

. . . the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale and artisanal fishers and women fish workers, as well as indigenous people in such developing States Parties, and territories and possessions.⁶³⁵

297. In addition, States have agreed during meetings on climate change impacts to take account of individuals and peoples affected by the adverse effects of climate change. For example:

a. the Conference of the Parties in Doha acknowledged that:

the further work to advance the understanding of and expertise on loss and damage . . . [h]ow loss and damage associated with the adverse effects of climate change affects those segments of the population that are already vulnerable owing to geography, gender, age, indigenous or minority status, or disability, and how the implementation of approaches to address loss and damage can benefit those segments of the population.⁶³⁶

b. in the Cancun Agreements, the Conference of the Parties acknowledged that:

responses to climate change should be coordinated with social and economic development . . . taking fully into account the legitimate priority needs of developing country Parties...and the consequences for vulnerable groups, in particular women and children”⁶³⁷ and requested developed countries Parties “to implement urgent, short-, medium- and long-term adaptation actions, plans, programmes and projects at the local, national,

⁶³⁵ Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, 14 November 2009, 2899 UNTS 211, Article 19(2), Annex 85.

⁶³⁶ Approaches to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change to enhance adaptive capacity, Decision 3/CP.18, Report of the Conference of the Parties on its eighteenth session, held in Doha from 26 November to 8 December 2012, FCCC/CP/2012/8/Add.1, 28 February 2018, paragraph 7(a)(iii), Annex 179.

⁶³⁷ The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, Decision 1/CP.16, Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010, FCCC/CP/2010/7/Add.1, 15 March 2011, Preamble to section on social and economic response measures, recital 3, Annex 163. The Paris Agreement also requires that adaptation action should “tak[e] into consideration vulnerable groups, communities and ecosystems” (see Paris Agreement, Article 7(5), Annex 93).

subregional and regional levels, in and across different economic and social sectors and ecosystems, as well as to undertake the activities.⁶³⁸

- c. under the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts, the Conference of the Parties recognised that technical assistance through the network is to be developed through an:

inclusive and country-driven process, taking into account the needs of vulnerable people, indigenous peoples and local communities.⁶³⁹

- d. in the Glasgow Pact, the Conference of the Parties recognised the:

important role of indigenous peoples, local communities and civil society, including youth and children, in addressing and responding to climate change and highlighting the urgent need for multilevel and cooperative action” and acknowledged that “climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity.⁶⁴⁰

298. This is reinforced by human rights and indigenous rights obligations to provide effective remedies to peoples and individuals. As discussed in **Section VI.C**, States recognise that there is a link between the state of the environment and the fulfilment

⁶³⁸ The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, Decision 1/CP.16, Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010, FCCC/CP/2010/7/Add.1, 15 March 2011, paragraph 18, Annex 163.

⁶³⁹ Santiago network for averting, minimizing and addressing loss and damage associated with the adverse effects of climate change under the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts, Decision 11/CP.27, Report of the Conference of the Parties on its twenty-seventh session, held in Sharm el-Sheikh from 6 to 20 November 2022, FCCC/CP/2022/10/Add.1, 17 March 2023, paragraph 26, Annex 191.

⁶⁴⁰ Glasgow Climate Pact, Decision 1/CP.26, Report of the Conference of the Parties on its twenty-sixth session, held in Glasgow from 31 October to 13 November 2021, FCCC/CP/2021/12/Add.1, 8 March, 2022, Preamble, recitals 9 and 6, Annex 185.

of human rights, including the rights of indigenous peoples.⁶⁴¹ This is why this Court and treaty bodies, including those whose decisions are binding on States, interpret human rights as including the duty to take account of the specific situations of those with greater vulnerabilities to climate change effects.⁶⁴² Similarly, as 173 States party to the International Covenant on Civil and Political Rights agree, all peoples have the right to self-determination and “[i]n no case may a people be deprived of its own means of subsistence.”⁶⁴³ This requires States to take positive actions to realise this right, even outside a State’s jurisdiction.⁶⁴⁴ States must also realise the rights of minorities, such as not denying their right “in community with the other members of their group, to enjoy their own culture, to profess and practice their own religion, or to use their own language.”⁶⁴⁵ Indigenous peoples are minorities whose lives are often closely associated with territory and the use of its resources, including traditional activities, such as fishing or hunting.⁶⁴⁶ Their rights to subsistence and cultural

⁶⁴¹ See “General Comment No. 21 (2009) – Right of everyone to take part in cultural life (Article 15, paragraph 1a of the Covenant on Economic, Social and Cultural Rights”, E/C.12/GC/21, 21 December 2009, paragraph 3, Annex 318.

⁶⁴² See, e.g., paragraphs 153-154. There are cases concerning the rights of those vulnerable to the effects of climate change currently pending before the ECtHR (see “Factsheet – Climate change”, *European Court of Human Rights*, February 2023, Annex 450). See also Joint statement by the Committee on the Elimination of Discrimination against Women, the Committee on Economic, Social and Cultural Rights, the Committee on the Protection of the Rights of All Migrant Workers and Members of Their Families, the Committee on the Rights of the Child and the Committee on the Rights of Persons with Disabilities, HRI/2019/1, 14 May 2020, paragraph 3, Annex 426. See further UN Human Rights Council Resolution 10/4, 25 March 2009, Preamble, recital 8 (“Recognizing that while these implications affect individuals and communities around the world, the effects of climate change will be felt most acutely by those segments of the population who are already in vulnerable situations owing to factors such as geography, poverty, gender, age, indigenous or minority status and disability”), Annex 115; IACtHR 2017 Advisory Opinion, paragraph 67, Annex 235 (“[i]t has been recognized that environmental damage will be experienced with greater force in the sectors of the population that are already in a vulnerable situation . . . Various human rights bodies have recognized that indigenous peoples, children, people living in extreme poverty, minorities, and people with disabilities, among others, are groups that are especially vulnerable to environmental damage, and have also recognized the differentiated impact that it has on women”).

⁶⁴³ International Covenant on Civil and Political Rights, 16 December 1966, 999 UNTS 171, Article 1(2), Annex 11.

⁶⁴⁴ See “General Comment No. 12 (1984) – Article 1 (Right to Self-determination), The Right to Self-determination of Peoples”, HRI/GEN/1/Rev.9 (Vol. I), *UN Human Rights Committee*, 13 March 1984, paragraph 6, Annex 310.

⁶⁴⁵ International Covenant on Civil and Political Rights, 16 December 1966, 999 UNTS 171, Article 27, Annex 11.

⁶⁴⁶ See *Billy v Australia*, paragraph 8.13, Annex 314.

identity may be adversely affected by the effects of climate change.⁶⁴⁷ For example, in *Billy v Australia*, the UN Human Rights Committee observed that:

the authors – as members of peoples who are the longstanding inhabitants of traditional lands consisting of small, low-lying islands that presumably offer scant opportunities for safe internal relocation – are highly exposed to adverse climate change impacts. It is uncontested that the authors’ lives and cultures are highly dependent on the availability of the limited natural resources to which they have access, and on the predictability of the natural phenomena that surround them. The Committee observes that in light of their limited resources and location, the authors would likely be unable to finance adequate adaptation measures themselves, on an individual or community level, to adjust to actual or expected climate and its effects in order to moderate harm. The Committee therefore considers that the authors are among those who are extremely vulnerable to intensely experiencing severely disruptive climate change impacts.⁶⁴⁸

299. States universally accept that “[e]veryone has the right to an effective remedy by the competent national tribunals for acts violating the fundamental rights granted him by the constitution or by law.”⁶⁴⁹ Under the American Convention on Human Rights, the right to a simple and proper recourse should be available “even though such violation may have been committed by persons acting in the course of their official duties.”⁶⁵⁰ This Court has decided that “the absence of an effective remedy for violations of the rights recognized by the Convention is itself a violation of the Convention”⁶⁵¹ and that the right to an effective remedy is linked to the State’s general duty to ensure and protect the enjoyment of human rights.⁶⁵² Other human rights treaties/declarations and their enforcement mechanisms echo this requirement of effective remedies.⁶⁵³

⁶⁴⁷ See, e.g., *Billy v Australia*, paragraph 8.14, Annex 314; “Views adopted by the Committee under article 5 (4) of the Optional Protocol, concerning communication No. 2552/2015”, CCPR/C/132/D/2552/2015, *UN Human Rights Committee*, 21 September 2022, paragraph 8.6, Annex 313.

⁶⁴⁸ *Billy v Australia*, paragraphs 8.13, Annex 314. See also *Billy v Australia*, paragraph 8.14, Annex 314.

⁶⁴⁹ Universal Declaration of Human Rights, Article 8, Annex 100.

⁶⁵⁰ American Convention on Human Rights, Article 25(1), Annex 1.

⁶⁵¹ *Judicial Guarantees in States of Emergency (Arts. 27(2), 25 and (8) American Convention on Human Rights)*. Advisory Opinion OC-9/87 of October 6, 1987. Series A No. 9, paragraph 24, Annex 237.

⁶⁵² See *Case of Ivcher Bronstein v Peru. Merits, Reparations and Costs*. Judgment of February 6, 2001. Series C No. 74, paragraph 135, Annex 243.

⁶⁵³ For example, under the European Convention on Human Rights, the remedy must be accessible, prompt and take account of the general legal and political context as well as the personal circumstances of the aggrieved (see European Convention on Human Rights, Article 35(1), Annex 6; “Guide on Article 13 of the European Convention on Human Rights”, *European Court of Human Rights Registry*, 31 August

300. Therefore, States party to the American Convention on Human Rights must take account of these vulnerabilities of present generations of individuals and peoples when providing full reparation and compensation.
301. Second, full reparation and compensation must also take account of the particular situations of peoples and individuals of future generations.
302. Late Judge Christopher Weeramantry, previous Vice-President of the ICJ, in his separate opinion in *Gabčíkovo-Nagymaros case* discussed the ancient origins of the principle of intergenerational equity.⁶⁵⁴
303. The ICJ recognised the relevance of future generations in the *Nuclear Weapons Advisory Opinion*, stating that nuclear weapons have the “potential to destroy all civilization and the entire ecosystem of the planet” and that their use “would be a serious danger to future generations.”⁶⁵⁵ Therefore, the ICJ recognised it would be “imperative” for it to take account of the ability of nuclear weapons “to cause damage to generations to come.”⁶⁵⁶ It also noted that the “the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn.”⁶⁵⁷
304. Late Judge Christopher Weeramantry and late Judge Antônio Augusto Cançado Trindade in multiple cases of the ICJ underscored the rights of future generations and recognised the existence of an international law principle of intergenerational equity.⁶⁵⁸ For example, Judge Christopher Weeramantry’s separate opinion in

2022, paragraphs 34-47, Annex 449; *Glas Nadezhda EOOD and Elenkov v Bulgaria* [2007] ECHR 804, paragraph 69, Annex 294; *Petkov and Others v Bulgaria* [2009] ECHR 885, paragraph 82, Annex 295; *Kadiķis v Latvia* [2006] ECHR 533, paragraph 62, Annex 293; *Akdivar and Others v Turkey*, [1998] ECHR 25, paragraph 69, Annex 290). See also African Charter on Human and Peoples’ Rights, Article 50, Annex 29; Charter of Fundamental Rights of the European Union, 2 October 2000, OJ C 364/1, Article 47, Annex 74; ASEAN Human Rights Declaration (AHRD) and the Phnom Penh Statement on the Adoption of the AHRD, 18 November 2012, paragraph 5, Annex 165; Arab Charter on Human Rights, 22 May 2004, CHR/NONE/2004/40/Rev.1, Article 23, Annex 83.

⁶⁵⁴ See *Gabčíkovo-Nagymaros*, Separate Opinion of Vice-President Weeramantry, page 110, Annex 267.

⁶⁵⁵ *Nuclear Weapons Advisory Opinion*, paragraph 35, Annex 264.

⁶⁵⁶ *Nuclear Weapons Advisory Opinion*, paragraph 36, Annex 264.

⁶⁵⁷ *Nuclear Weapons Advisory Opinion*, paragraph 29, Annex 264. The ICJ also referred to these statements and underscored their importance in a subsequent case (see *Gabčíkovo-Nagymaros*, paragraph 53, Annex 266).

⁶⁵⁸ See *Maritime delimitation in the Area Between Greenland and Jan Mayen (Denmark v Norway)*, Judgment of 14 June 1993, I.C.J Reports 1993, p. 38, Separate Opinion of Judge Weeramantry, Annex

Gabčíkovo-Nagymaros noted that ancient traditions had already recognised the idea of the rights of future generations being served through the harmonisation of human development work with respect to the natural environment.⁶⁵⁹ In his dissenting opinion in the *Nuclear Weapons Advisory Opinion*, he added that the Court “must, in its jurisprudence, pay due recognition to the rights of future generations” given that these rights “have passed the stage when they were merely an embryonic right struggling for recognition” and “have woven themselves into international law through major treaties, through juristic opinion and through general principles of law recognised by civilized nations.”⁶⁶⁰ By 2010, Judge Antônio Augusto Cançado Trindade declared that “it can hardly be doubted that the acknowledgement of inter-generational equity forms part of conventional wisdom in International Environmental Law.”⁶⁶¹

305. This Court has already noted that the right to a healthy environment is a universal value that is owed to both present and future generations.⁶⁶² It has also recognised the interests of future generations, noting that for indigenous communities, relations to land are a “material and spiritual element which they must fully enjoy, even to preserve their cultural legacy and transmit it to future generations.”⁶⁶³ In addition, the IACHR recognises that “[b]ased on the principle of intergenerational equity, all children and adolescents have the right to enjoy a healthy environment and to live on a planet equal to or in better conditions than their ancestors.”⁶⁶⁴ OAS Member States indicated in the Inter-American Democratic Charter that it was important for them to

263; *Nuclear Weapons Advisory Opinion*, Dissenting Opinion of Judge Weeramantry, page 233, Annex 265; *Pulp Mills*, Separate opinion of Judge Cançado Trindade, paragraph 122, Annex 273; *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)*, Judgment of 31 March 2014, I.C.J Reports 2014, p. 226, Separate Opinion of Judge Cançado Trindade, paragraph 60, Annex 277.

⁶⁵⁹ See *Gabčíkovo-Nagymaros*, Separate Opinion of Vice-President Weeramantry, page 106, Annex 267.

⁶⁶⁰ *Nuclear Weapons Advisory Opinion*, Dissenting Opinion of Judge Weeramantry, page 233, Annex 265.

⁶⁶¹ *Pulp Mills*, Separate opinion of Judge Cançado Trindade, paragraph 122, Annex 273.

⁶⁶² See IACtHR 2017 Advisory Opinion, paragraph 59, Annex 235.

⁶⁶³ *Case of the Mayagna (Sumo) Awas Tingni Community v Nicaragua. Merits, Reparations and Costs*. Judgment of August 31, 2001. Series C No. 79, paragraph 149, Annex 244.

⁶⁶⁴ IACHR Climate Emergency Resolution, paragraph 21, Annex 97. The resolution also recognises that “climate change is one of the greatest threats to the full enjoyment and exercise of human rights of present and future generations, to the health of ecosystems and all species that inhabit the planet” (see IACHR Climate Emergency Resolution, page 8, Annex 97).

implement policies and strategies to protect the environment “including application of various treaties and conventions . . . for the benefit of future generations.”⁶⁶⁵

306. In fact, by the UNFCCC, 197 States and the European Union affirm that they are “[d]etermined to protect the climate system for present and future generations.”⁶⁶⁶ By the Paris Agreement, 194 States and the European Union acknowledge that climate change is a concern of humankind and they “should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights . . . and intergenerational equity.”⁶⁶⁷ Many other international conventions refer to the requirement to consider and protect future generations from adverse climate change effects.⁶⁶⁸
307. In addition, States acknowledge the need to take account of the interests of future generations, as a general practice accepted by law, through declarations, joint statements and charters.⁶⁶⁹ They also do so through UN General Assembly resolutions.⁶⁷⁰ For example, by UN General Assembly Resolution 35/8 in 1980, UN Member States “proclaim[ed] the historical responsibility of States for the preservation of nature for present and future generations” and urged States to take specific actions to preserve the environment “in the interests of present and future

⁶⁶⁵ Inter-American Democratic Charter, AG/RES. 1838 (XXXI-O/01), 11 September 2001, Article 15, Annex 98 Bis.

⁶⁶⁶ UNFCCC, Article 3, Annex 50.

⁶⁶⁷ Paris Agreement, Recitals, Annex 93.

⁶⁶⁸ *See, e.g.*, International Convention for the Regulation of Whaling, 2 December 1946, 161 UNTS 72, Preamble, Annex 5; African Convention on the Conservation of Nature and Natural Resources, 15 September 1968, 1001 UNTS 3, Preamble, Annex 13; Convention for the Protection of the World Cultural and Natural Heritage, 16 November 1972, 1037 UNTS 151, Article 4, Annex 18; Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Article 2(5)(c), Annex 47; UNCCD, Preamble, Annex 61; Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters “Aarhus Convention”, 25 June 1998, 2161 UNTS 447, Preamble and Article 1, Annex 70; Convention on International Trade in Endangered Species of Wild Fauna and Flora, 3 March 1973, 993 UNTS 243, Preamble, Annex 20; Convention on Biological Diversity, Preamble and Article 2, Annex 51; UNFCCC, Preamble and Article 3, Annex 50.

⁶⁶⁹ *See, e.g.*, UNESCO General Conference, Declaration on the Responsibilities of the Present Generations Towards Future Generations, Resolution 44, 29 C/Resolutions + CORR, 12 November 1997, Annex 110; UN General Assembly Resolution 37/7 (1982), A/RES/37/7, 29 October 1982, “World Charter for Nature”, Preamble, Annex 105; UN General Assembly Resolution 3281(XXIX) (1974), A/9946, 12 December 1974, Article 30, Annex 103; Stockholm Declaration, Principles 1-2, Annex 153; Rio Declaration, Principle 3, Annex 157.

⁶⁷⁰ *See, e.g.*, UN General Assembly Resolution 43/53, Preamble, Annex 107.

generations.”⁶⁷¹ In addition, 159 UN Member States voted in favour of a resolution committing themselves to protect and preserve the health, productivity and resilience of oceans and marine ecosystems, to maintain their biodiversity, enabling their conservation and sustainable use for present and future generations.⁶⁷²

308. Further, the requirement to take account of future generations is supported by State practice through legislation, constitutions and national court decisions.⁶⁷³ For example:

- a. the German Constitutional Court ruled that the Basic Law of Germany requires Germany to take climate action for the benefit of future generations and gives rise to an objective duty to protect the life and health of future generations against risks posed by climate change;⁶⁷⁴
- b. the Dutch Supreme Court decided that the Netherlands must reduce its greenhouse gas emissions even if the risk to the welfare of Dutch residents will only materialise in a few decades;⁶⁷⁵
- c. the Nepalese Supreme Court considered it imperative to address climate justice concerns for both the current and future generations (invoking the principle of intergenerational equity) and required the State to enact

⁶⁷¹ UN General Assembly Resolution 35/8 (1980), A/RES/35/8, 30 October 1980, paragraphs 1 and 3, Annex 104.

⁶⁷² See UN General Assembly Resolution 77/248 (2022), A/RES/77/248, 30 December 2022, paragraph 207, Annex 104.

⁶⁷³ See, e.g., Well-being of Future Generations (Wales) Act 2015, Annex 146; the UK is in the process of discussing equivalent legislation (see Wellbeing of Future Generations Bill [HL], Parliamentary Bills, UK Parliament, 8 February 2022, Annex 147); Constitution of the Republic of South Africa, 8 May 1996, as amended on 11 October 1996, Article 24 (b) (“[e]veryone has the right to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures”), Annex 140; Constitution of the Federative Republic of Brazil, 22 September 1988, as amended from time to time through 2022 (English translation), Article 225 (“[t]he Government and the community have a duty to defend and to preserve the environment for present and future generations”), Annex 136; Constitution of the Kingdom of Bhutan, 18 July 2008, Article 5 (“[e]very Bhutanese is a trustee of the Kingdom’s natural resources and environment for the benefit of the present and future generations and it is the fundamental duty of every citizen to contribute to the protection of the natural environment, conservation of the rich biodiversity of Bhutan and prevention of all forms of ecological degradation”), Annex 144.

⁶⁷⁴ See *Neubauer v Germany*, Order of the First Senate of 24 March 2021, German Federal Constitutional Court – 1 BvR 2656/18, operative part of decision and, e.g., paragraphs 146 and 197, Annex 333.

⁶⁷⁵ See *Urgenda Foundation v the State of the Netherlands*, Judgment of the Supreme Court of the Netherlands of 20 December 2019, paragraph 5.6.2, Annex 332. See also *Milieudefensie v Royal Dutch Shell*, Judgment of the Hague District Court of 26 May 2021, paragraph 4.2.4, Annex 334.

comprehensive climate legislation that aligns with its international legal commitments,⁶⁷⁶ and

- d. the Colombian Supreme Court considered that Amazon deforestation infringes the intergenerational equity principle and highlighted the duty of authorities to respond to this problem by adopting corrective and palliative measures.⁶⁷⁷

309. Teachings of highly qualified publicists support the requirement for the principle of intergenerational equity to be taken into account.⁶⁷⁸ Professor Dire Tladi considers that the principle of intergenerational equity requires the protection of the environment for future generations.⁶⁷⁹ The Institut de Droit International recognised that the principle of intergenerational equity influences responsibility and liability.⁶⁸⁰ The Maastricht Principles, adopted by scholars such as Professor Sandra Liebenberg and Dr Margaretha Wewerinke-Singh and endorsed widely by publicists such as David R. Boyd (UN Special Rapporteur on Human Rights and the Environment) and Soledad García Muñoz (former IACHR's Special Rapporteur on Economic, Social, Cultural, and Environmental Rights), identify intragenerational and intergenerational

⁶⁷⁶ See *Shrestha v Office of the Prime Minister et al.*, Order of the Nepali Supreme Court of 25 December 2018, NKP Part 61, Vol. 3, page 11, paragraph 2, Annex 330.

⁶⁷⁷ See *Future Generations v Ministry of Environment and Others*, Sentence 4360-2018 of the Supreme Court of Justice of Colombia of 5 April 2018, paragraphs 11.2 and 11.3, Annex 329.

⁶⁷⁸ See, e.g., A. Venn, *Social Justice and Climate Change*, in *MANAGING GLOBAL WARMING*, ed. T. Letcher, (Academic Press, 2019), pages 711-728, Annex 473; C.Y. Keong, *Global Environmental Sustainability: Case Studies and Analysis of the United Nations' Journey toward Sustainable Development* (Elsevier, 2020), page 27, Annex 477; A. Opal & J. Nathwani, *Global energy transition risks: Evaluating the intergenerational equity of energy transition costs*, in *ENERGY DEMOCRACIES FOR SUSTAINABLE FUTURES* ed. M. Nadesan et al., (Academic Press, 2023), pages 301-310, Annex 492; E.B. Weiss, *In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity* (United Nations University, 1989), pages 293-295 ("all members of each generation of human beings, as a species, inherit a natural and cultural patrimony from past generations, both as beneficiaries and as custodians under the duty to pass on this heritage to future generations. As a central point of this theory the right of each generation to benefit from this natural and cultural heritage is inseparably coupled with the obligation to use this heritage in such a manner that it can be passed on to future generations in no worse condition than it was received from past generations"), Annex 455; General Comment No. 26, paragraph 11 ("[t]he Committee recognizes the principle of intergenerational equity and the interests of future generations"), Annex 321.

⁶⁷⁹ See D. Tladi, "Of Course for Humans: A Contextual Defence of Intergenerational Equity", *South Africa Journal of Environmental Law and Policy*, 2002, page 184, Annex 459.

⁶⁸⁰ See *Responsibility and Liability under International Law for Environmental Damage*, page 2, Annex 458.

human rights obligations of States to preserve the environment for future generations.⁶⁸¹

⁶⁸¹ See “The Maastricht Principles on the Human Rights of Future Generations”, *Maastricht Centre for Human Rights*, 3 February 2023, principle 7(a) and 8(b), Annex 493.

VII. HEADING F. REGARDING THE SHARED AND DIFFERENTIATED HUMAN RIGHTS OBLIGATIONS AND RESPONSIBILITIES OF STATES IN THE CONTEXT OF THE CLIMATE EMERGENCY
PART 2: BEARING IN MIND THAT THE CLIMATE CRISIS HAS A GREATER IMPACT ON SOME REGIONS AND POPULATIONS, INCLUDING THE CARIBBEAN COUNTRIES AND TERRITORIES, AS WELL AS ON THE COASTAL AREAS AND ISLANDS OF OUR REGION AND THEIR INHABITANTS:

QUESTION 1: HOW SHOULD INTER-STATE COOPERATION OBLIGATIONS BE INTERPRETED?

ANSWER

310. As this Court found in the IACtHR 2017 Advisory Opinion, under international law, States have a duty to cooperate to ensure the protection of the climate system and other parts of the environment.
311. The duty to cooperate, included in Article 26 of the American Convention on Human Rights, should also be understood as encompassing a duty on developed States to assist in the mitigation, adaptation and reparation of the consequences of climate change, including by the provision of financial support to small island States. This follows from the disproportionate impact felt by small island States (including Barbados).
312. Each of the constituent elements of the duty to cooperate is addressed in turn below.
- (i) Inter-State cooperation obligations should be interpreted to include a duty to notify
313. The UN General Assembly recognised that duties of cooperation should include a duty to notify as long ago as 1973, when issuing Resolution 3129(XXVIII), which stated that the sharing of natural resources “must be developed on the basis of a system of information and prior consultation within the framework of the normal relations.”⁶⁸²

⁶⁸² UN General Assembly Resolution 3129 (1973), A/RES/3129(XXVIII), 13 December 1973, Annex 102. See also D. G. Partan, “The “Duty to Inform” in International Environmental Law”, *Boston University International Law Journal*, 1988, page 63, Annex 454.

314. As this Court itself explained in the IACtHR 2017 Advisory Opinion, the obligation to notify has been reflected in numerous multilateral and bilateral treaties.⁶⁸³ It has also been recognised in the jurisprudence of the ICJ in cases involving the joint use and protection of international waters.⁶⁸⁴

315. That the obligation to notify is an element of the broader obligation of cooperation is also expressly recognised in the Rio Declaration in the following terms:

States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.⁶⁸⁵

316. In the IACtHR 2017 Advisory Opinion, this Court itself set out a clear explanation of the duty to notify, in terms of both its timing and content.⁶⁸⁶ In the submission of Barbados, there is no compelling reason for the Court to depart significantly from its earlier position.

⁶⁸³ See IACtHR 2017 Advisory Opinion, paragraph 188, Annex 235.

⁶⁸⁴ See *Certain Activities Carried Out by Nicaragua in the Border Area Merits Judgment*, paragraph 104 (“to fulfil its obligation to exercise due diligence in preventing significant transboundary environmental harm, a State must, before embarking on an activity having the potential adversely to affect the environment of another State, ascertain if there is a risk of significant transboundary harm, which would trigger the requirement to carry out an environmental impact assessment... If the environmental impact assessment confirms that there is a risk of significant transboundary harm, the State planning to undertake the activity is required, in conformity with its due diligence obligation, to notify and consult in good faith with the potentially affected State, where that is necessary to determine the appropriate measures to prevent or mitigate that risk”) Annex 278; *Pulp Mills*, paragraph 81 (“The Court considers that the procedural obligations of informing, notifying and negotiating constitute an appropriate means, accepted by the Parties, of achieving the objective which they set themselves in Article 1 of the 1975 Statute. These obligations are all the more vital when a shared resource is at issue, as in the case of River Uruguay, which can only be protected through close and continuous co-operation between the riparian States”) and paragraph 113 (“In the opinion of the Court, the obligation to notify is intended to create the conditions for successful co-operation between the parties, enabling them to access the plan’s impact on the river on the basis of the fullest possible information and, if necessary, to negotiate the adjustments needed to avoid the potential damage that it might cause”), Annex 272; *Gabčíkovo-Nagymaros*, paragraph 112 (“The obligations contained in Articles 15, 19 and 20 are, by definition, general and have to be transformed into specific obligations of performance through a process of consultation and negotiation. Their implementation thus requires a mutual willingness to discuss in good faith actual and potential environmental risks. It is all the more important to do this because as the Court recalled in its Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*, ‘the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn’”), Annex 266.

⁶⁸⁵ Rio Declaration, Principle 19, Annex 157.

⁶⁸⁶ See IACtHR 2017 Advisory Opinion, paragraphs 187-196, Annex 235.

317. Regarding the content of the obligation:

- a. the duty of notification involves the “obligation to notify States that may potentially be affected by possible significant environmental damage as a result of activities carried out within a State’s jurisdiction”;⁶⁸⁷
- b. this obligation extends to “every case in which there is a possibility of a significant transboundary environmental harm . . . as a result of activities planned by a State or by private individuals with State authorization,”⁶⁸⁸ as reflected in the ILC Commentaries on the Draft Articles on Prevention of Transboundary Harm from Hazardous Activities;⁶⁸⁹
- c. the duty exists in the case of environmental emergencies producing or entailing a sudden and imminent risk of negative or adverse environmental effects, due either to natural causes or human conduct;⁶⁹⁰
- d. the notification obligation requires provision of “sufficient and adequate information for the potentially affected States to study and evaluate the possible effect of the planned activities”;⁶⁹¹ and
- e. per the judgment of the ICJ in the *Pulp Mills* case (in the context of interpreting notification obligations contained in the 1975 Statute of the River Uruguay), “the obligation to notify is intended to create the conditions for successful co-operation between the parties.”⁶⁹²

⁶⁸⁷ IACtHR 2017 Advisory Opinion, paragraph 187, Annex 235.

⁶⁸⁸ IACtHR 2017 Advisory Opinion, paragraph 189, Annex 235.

⁶⁸⁹ See “Commentaries on the Draft articles on Prevention of Transboundary Harm from Hazardous Activities”, Report of the Commission to the General Assembly on the work of its fifty-third session, Yearbook of the International Law Commission, A/CN.4/SER.A/2001/Add.1 (Part 2), *International Law Commission*, 10 August 2001 (“**Commentaries on the Draft Articles on Prevention of Transboundary Harm**”), Article 8, paragraph 2 (“Article 8 calls on the State of origin to notify States likely to be affected by the planned activity. The activities here include both those that are planned by the State itself and those planned by private entities. The requirement of notification is an indispensable part of any system designed to prevent transboundary harm or at any event to minimize the risk thereof.”), Annex 439.

⁶⁹⁰ See IACtHR 2017 Advisory Opinion, paragraph 190, Annex 235.

⁶⁹¹ IACtHR 2017 Advisory Opinion, paragraph 194, Annex 235.

⁶⁹² *Pulp Mills*, paragraph 113, Annex 272.

318. As to the timing of the obligation to notify:

- a. as this Court itself found in the IACtHR 2017 Advisory Opinion, “[t]he proper moment arises when the State of origin becomes aware or determines that an activity implemented within its jurisdiction entails or could entail a potential risk of significant transboundary harm”;⁶⁹³
 - b. this is consistent with the judgment of the ICJ in *Pulp Mills*, in which it held that a State must notify the other State “as soon as it is in possession of a plan which is sufficiently developed to . . . make the preliminary assessment . . . of whether the proposed works might cause significant damage to the other party”;⁶⁹⁴ and
 - c. similarly, UNCLOS provides that the duty arises when the State becomes aware of certain potential risks.⁶⁹⁵
- (ii) Inter-State cooperation obligations should be interpreted to include a duty to consult and negotiate

319. In the IACtHR 2017 Advisory Opinion, this Court observed that the duty to consult and negotiate with potentially affected States is a form of cooperation to prevent or to mitigate transboundary harm.⁶⁹⁶ This element of the cooperation obligation is rooted in both international jurisprudence and various treaties.

320. For instance, in *Pulp Mills*, the ICJ held:

[t]he obligation to notify is . . . an essential part of the process leading the parties to consult in order to assess the risks of the plan and to negotiate possible changes which may eliminate those risks or minimise their effects.⁶⁹⁷

⁶⁹³ IACtHR 2017 Advisory Opinion, paragraph 192, Annex 235.

⁶⁹⁴ *Pulp Mills*, paragraph 105, Annex 272.

⁶⁹⁵ See UNCLOS, Article 198 (“When a State becomes aware of cases in which the marine environment is in imminent danger of being damaged or has been damaged by pollution, it shall immediately notify other States it deems likely to be affected by such damage, as well as the competent international organisations.”), Annex 32.

⁶⁹⁶ See IACtHR 2017 Advisory Opinion, paragraph 197, Annex 235.

⁶⁹⁷ *Pulp Mills*, paragraph 115, Annex 272.

321. The duty to consult and even negotiate with other States potentially affected by certain activities is found:

- a. under the Convention on the Law of the Non-navigational Uses of International Watercourses, 41 States agree that:

[w]atercourse States shall exchange information and consult each other and, if necessary, negotiate on the possible effects of planned measures on the condition of an international watercourse.⁶⁹⁸

...

1. If a communication is made under article 15 that implementation of the planned measures would be inconsistent with the provisions of article 5 or 7, the notifying State and the State making the communication shall enter into consultations and, if necessary, negotiations with a view to arriving at an equitable resolution of the situation.

2. The consultations and negotiations shall be conducted on the basis that each State must in good faith pay reasonable regard to the rights and legitimate interests of the other State.

3. During the course of the consultations and negotiations, the notifying State shall, if so requested by the notified State at the time it makes the communication, refrain from implementing or permitting the implementation of the planned measures for a period of six months unless otherwise agreed.⁶⁹⁹

- b. under the Convention on the Transboundary Effects of Industrial Accidents, 44 States and the European Union agree that:

Parties concerned shall, at the initiative of any such Party, enter into discussions on the identification of those hazardous activities that are, reasonably, capable of causing transboundary effects. If the Parties concerned do not agree on whether an activity is such a hazardous activity, any such Party may, unless the Parties concerned agree on another method of the question, submit that

⁶⁹⁸ Convention on the Law of the Non-Navigational Uses of International Watercourses, Article 11, Annex 66.

⁶⁹⁹ Convention on the Law of the Non-Navigational Uses of International Watercourses, Article 17, Annex 66.

question to an inquiry commission in accordance with the provisions of Annex II hereto for advice.⁷⁰⁰

- c. under the Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques, 94 States agree that:

[t]he States Parties to this Convention undertake to facilitate, and have the right to participate in, the fullest possible exchange of scientific and technological information on the use of environmental modification techniques for peaceful purposes. States Parties in a position to do so shall contribute, alone or together with other States or international organizations, to international economic and scientific co-operation in the preservation, improvement and peaceful utilization of the environment, with due consideration for the needs of the developing areas of the world.⁷⁰¹

322. As to the content of the obligation to consult and negotiate:

- a. as this Court noted in the IACtHR 2017 Advisory Opinion,⁷⁰² the ICJ found in *Gabčíkovo-Nagymaros case* that the consultation and negotiation process calls for the mutual willingness of States to discuss actual and potential environmental risks in good faith;⁷⁰³
- b. as the ICJ found in *Pulp Mills case*, during the time when such consultations and negotiations are taking place, the State initiating the proposed activity is obliged not to authorise such potentially harmful activity and not to carry it out;⁷⁰⁴ and

⁷⁰⁰ Convention on the Transboundary Effects of Industrial Accidents, Article 4 (2), Annex 48.

⁷⁰¹ Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques, 10 December 1976, 1108 UNTS 151, Article III (2), Annex 22.

⁷⁰² See IACtHR 2017 Advisory Opinion, paragraph 199, Annex 235.

⁷⁰³ See *Gabčíkovo-Nagymaros*, paragraph 112 (“The obligations contained in Articles 15, 19 and 20 are by definition, general and have to be transformed into specific obligations of performance through a process of consultation and negotiation. Their implementation thus requires a mutual willingness to discuss in good faith actual and potential environmental risks”), Annex 266.

⁷⁰⁴ See *Pulp Mills*, paragraphs 144 (“Consequently, in the opinion of the Court, as long as the procedural mechanism for co-operation between the parties to prevent significant damage to one of them is taking its course, the State initiating the planned activity is obliged to authorize such work and, *a fortiori*, not to carry it out”) and 147 (“In the view of the Court, there would be no point to the co-operation mechanism provided for by Articles 7 to 12 of the 1975 Statute if the party initiating the planned activity were to authorize or implement it without waiting for that mechanism to be brought to a

- c. the obligation to consult and negotiate does not entail an obligation to reach agreement and the prior consent of a potentially affected State is not required in order for the home State to initiate a course of action potentially leading to transboundary harm, unless this has been established in a specific treaty between the parties.⁷⁰⁵
323. As to timing, in reliance on the Rio Declaration,⁷⁰⁶ this Court previously correctly observed that the “consultation of the potentially affected State or States should be carried out in a timely manner and in good faith.”⁷⁰⁷
324. As this Court has previously summarised: the duty to consult and negotiate with States must be conducted in a timely manner and in good faith which is not a formal procedure, but one that involves mutual willingness of the concerned States to have a genuine discussion on actual and potential environmental harms.⁷⁰⁸
- (iii) Inter-State cooperation obligations should be interpreted to include a duty to exchange information
325. A concept closely related to the duty to consult and negotiate is the duty on the State of origin to exchange information. Typically, such information concerns scientific and technical knowledge, and its exchange takes on particular importance in the context of avoidance of significant transboundary harm.
326. This Court’s previous identification of exchange of information as a constituent element of the broader duty of cooperation is consistent with its appearance in several international instruments including:
- a. the Paris Agreement:

Parties should strengthen their cooperation on enhancing action on adaptation, taking into account the Cancun Adaptation Framework, including with regard to ... [s]haring information, good practices, experiences and

conclusion. Indeed, if that were the case, the negotiations between the parties would no longer have any purpose”), Annex 272.

⁷⁰⁵ See IACtHR 2017 Advisory Opinion, paragraph 203, Annex 235.

⁷⁰⁶ See Rio Declaration, Principle 19, Annex 157.

⁷⁰⁷ IACtHR 2017 Advisory Opinion, paragraph 198, Annex 235.

⁷⁰⁸ See IACtHR 2017 Advisory Opinion, paragraph 205, Annex 235.

lessons learned, including, as appropriate, as these relate to science, planning, policies and implementation in relation to adaptation actions.⁷⁰⁹

b. the UNFCCC:

[t]he Conference of the Parties, as the supreme body of this Convention, shall keep under regular review the implementation of the Convention and any related legal instruments that the Conference of the Parties may adopt, and shall make, within its mandate, the decisions necessary to promote the effective implementation of the Convention. To this end, it shall [p]romote and facilitate the exchange of information on measures adopted by the Parties to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respect respective commitments under the Convention.⁷¹⁰

c. the Convention on the Physical Protection of Nuclear Material:

[i]n the case of theft, robbery or any other unlawful taking of nuclear material or of credible threat thereof, States Parties shall, in accordance with their national law, provide co-operation and assistance to the maximum feasible extent in the recovery and protection of such material to any State that so requests. In particular ... [a]s appropriate, the States Parties concerned shall exchange information with each other or international organizations with a view to protecting threatened nuclear material, verifying the integrity of the shipping container, or recovering unlawfully taken nuclear material and shall: (i) Co-ordinate their efforts through diplomatic and other agreed channels; (ii) Render assistance, if requested; (iii) Ensure the return of nuclear material stolen or missing as a consequence of the above-mentioned events.⁷¹¹

d. the Convention on the Law of the Non-Navigational Uses of International Watercourses:

[w]atercourse States shall exchange information and consult each other and, if necessary, negotiate on the

⁷⁰⁹ Paris Agreement, Article 7(7)(a), Annex 93.

⁷¹⁰ UNFCCC, Article 7(2)(b), Annex 50.

⁷¹¹ Convention on the Physical Protection of Nuclear Material, 26 October 1979, 1456 UNTS 125, Article 5(2)(b), Annex 25.

possible effects of planned measures on the condition of an international watercourse.⁷¹²

e. the Rio Declaration:

States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.⁷¹³

f. the Stockholm Declaration:

[i]nternational matters concerning the protection and improvement of the environment should be handled in a co-operative spirit by all countries, big and small, on an equal footing. Co-operation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States.⁷¹⁴

327. Regarding the content of the obligation, the purpose for such exchange of information is to prevent or reduce transboundary harm.⁷¹⁵ It follows that the principles applicable in that context (and the corresponding ILC articles) are also relevant here, as explained in **Section VI.B** above. On the issue of exchange of information, the Draft Articles on Prevention of Transboundary Harm state that:

[w]hile the activity is being carried out, the States concerned shall exchange in a timely manner all available information concerning that activity relevant to preventing significant transboundary harm or at any event minimizing the risk thereof. Such an exchange of information shall continue until such time as the States concerned consider it appropriate even after the activity is terminated.⁷¹⁶

⁷¹² Convention on the Law of the Non-Navigational Uses of International Watercourses, Article 11, Annex 66.

⁷¹³ Rio Declaration, Principle 19, Annex 157.

⁷¹⁴ Stockholm Declaration, Principle 24, Annex 153.

⁷¹⁵ *See* Commentaries on the Draft Articles on Prevention of Transboundary Harm, page 165, Annex 439.

⁷¹⁶ Draft Articles on Prevention of Transboundary Harm, Article 12, Annex 437.

328. As to timing, as follows from the foregoing quotation, information should be exchanged “in a timely manner.” This should be interpreted as meaning at such time that the information in question can be effectively utilised by the recipient State in its efforts to prevent or reduce transboundary harm in the context of climate change.
329. While this Court has not previously gone so far as to identify the duty to exchange information as a customary international legal obligation, it has regarded it as “a positive trend and a concrete form of achieving compliance with the duty of cooperation.”⁷¹⁷ While the requirement to exchange information in order to properly carry out cooperation obligations will vary depending on the context, such information and knowledge exchange could well be of critical importance in the context of the efforts of small island States such as Barbados to mitigate the effects of climate change.
- (iv) Inter-State cooperation obligations should be interpreted to include a duty to assist in the mitigation, adaptation and reparation of the consequences of climate change
330. As explained in **Section VI.F** above, States’ obligation of cooperation entails a duty to finance adaptation and mitigation efforts of small island States.
331. This position finds support in various treaties and declarations, for instance:
- a. the Rio Declaration:

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.⁷¹⁸

...

States should cooperate to promote a supportive and open international economic system that would lead to

⁷¹⁷ IACtHR 2017 Advisory Opinion, paragraph 208, Annex 235.

⁷¹⁸ Rio Declaration, Principle 7, Annex 157.

economic growth and sustainable development in all countries, to better address the problems of environmental degradation.⁷¹⁹

b. the Paris Agreement:

Parties recognize the importance of support for and international cooperation on adaptation efforts and the importance of taking into account the needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change.⁷²⁰

c. most prominently, the UNFCCC:

[t]he Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade

...

The developed country Parties and other developed Parties included in Annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.

...

In the implementation of the commitments in this Article, the Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures, especially on (a) Small island countries; (b) Countries with low-lying coastal areas; (c) Countries with arid and semi-arid areas, forested areas and areas liable to forest decay; (d) Countries with areas prone to natural disasters; (e) Countries with areas liable to drought and desertification; (f) Countries with areas of

⁷¹⁹ Rio Declaration, Principle 12, Annex 157.

⁷²⁰ Paris Agreement, Article 7(6), Annex 93.

high urban atmospheric pollution; (g) Countries with areas with fragile ecosystems, including mountainous ecosystems; (h) Countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy-intensive products and (i) Land-locked and transit countries. Further, the Conference of Parties may take actions, as appropriate with respect to this paragraph.⁷²¹

⁷²¹ UNFCCC, Articles 3(5), 4(4) and 4(8), Annex 50.

QUESTION 2: WHAT OBLIGATIONS AND PRINCIPLES SHOULD GUIDE STATE ACTIONS IN ORDER TO ENSURE THE RIGHT TO LIFE AND SURVIVAL OF THE MOST AFFECTED REGIONS AND POPULATIONS IN THE DIFFERENT COUNTRIES AND IN THE REGION?

ANSWER

332. Barbados has set out in **Section VI** of this submission the content and legal basis of States' obligations as regards the climate emergency and human rights.
333. As explained in **Section VI.C**, climate change is fundamentally undermining the fulfilment of internationally protected human rights including the right to life. As this Court stated in the IACtHR 2017 Advisory Opinion:
- in application of Article 1(1) of the American Convention, States have the obligation *erga omnes* to respect and guarantee protection standards and to ensure the effectiveness of human rights. In this regard, the Court recalls that the general obligations to respect and to ensure rights established in Article 1(1) of the Convention give rise to special duties that can be determined based on the particular needs for protection of the subject of law, due to either their personal conditions or specific situation.⁷²²
334. Some of the worst effects of climate change are felt by small island States and among other developing States.⁷²³ Although they are among the least responsible of all nations for climate change, they are likely to suffer strongly from its adverse effects and could in some cases even become uninhabitable. This makes them a special case requiring the help and attention of the international community.⁷²⁴
335. It is critical, in order that Barbados and similarly situated Caribbean States are able to mitigate the effects of climate change and protect the right to life of their people, that they should have the financial means to do so. As explained in **Sections VI.B-VI.K** above, not only are polluting States liable under international law to pay reparations in respect of breaches of their international legal obligations vis-à-vis the environment, but they are also under primary obligations to make payments into funds established

⁷²² IACtHR 2017 Advisory Opinion, paragraph 115, Annex 235.

⁷²³ See "On the Frontlines of Climate Change, Small Island States Can Lead in Resilience", *The World Bank*, 11 April 2022, Annex 444.

⁷²⁴ See "Climate change, small island developing States", *Climate Change Secretariat, United Nations Framework Convention on Climate Change* (UNFCCC), 2005, page 5, Annex 410.

for this reason. Fundamentally, States have an obligation under international law to “reestablish the original position or pay compensation” where they have breached an obligation, including in respect of environmental protection.⁷²⁵

336. In section VIII of the IACtHR 2017 Advisory Opinion, this Court set out certain duties which are derived from the obligations under Articles 4(1) and 5(1) of the American Convention on Human Rights.

337. Fundamentally, as explained elsewhere in this submission, States should have regard to the following principles:

- a. States have an obligation to ensure that activities within their jurisdiction and control do not cause environmental transboundary harm. This is supported by the award in the *Trail Smelter Arbitration*⁷²⁶ and a consistent line of ICJ jurisprudence,⁷²⁷ as well as various other international legal instruments including the work of the ILC;⁷²⁸
- b. States are under an obligation both to mitigate harm already caused by their own activities (as well as those taken by individuals for which States are internationally responsible), as well as to repair harm to the environment even if the State in question has not caused it. As set out in greater detail at **Section VI.E**, this is consistent with States’ obligations under numerous treaties including the UNFCCC and the Paris Agreement;
- c. States’ obligation to cooperate is a further critical component of their climate obligations and should guide States’ actions when implementing actions taken to ensure the right to life and survival of the most affected regions and populations;

⁷²⁵ Responsibility and Liability under International Law for Environmental Damage, Article 1, Annex 458.

⁷²⁶ See *Trail Smelter Arbitration*, page 1965, Annex 300.

⁷²⁷ See, e.g., Section VI.B above; *Nuclear Weapons Advisory Opinion*, paragraph 29, Annex 264; *Gabčíkovo-Nagymaros*, paragraph 53, Annex 266; *Pulp Mills*, paragraph 193, Annex 272; *Certain Activities Carried Out by Nicaragua in the Border Area Merits Judgment*, paragraph 104, Annex 278.

⁷²⁸ See Commentaries on the Draft Articles on Prevention of Transboundary Harm, page 159, Article 8, paragraph 2 (“Article 8 calls on the State of origin to notify States likely to be affected by the planned activity. The activities here include both those that are planned by the State itself and those planned by private entities. The requirement of notification is an indispensable part of any system designed to prevent transboundary harm or at any event to minimize the risk thereof”), Annex 439.

- d. States should be guided by the precautionary principle, i.e., that States are under an obligation to refrain from carrying out harmful activities which are likely to cause environmental harm, even where full scientific certainty of the effects of the proposed actions is not available. The precautionary principle enjoys broad acceptance and has been recognised by (at least) this Court,⁷²⁹ several treaties (including the UNFCCC),⁷³⁰ the Rio Declaration⁷³¹ and the award of the tribunal in the *Iron Rhine* case;⁷³² and
- e. States should be guided by the polluter pays principle, a primary obligation of States in the context of the climate emergency – recognised in numerous treaties,⁷³³ declarations,⁷³⁴ the *Trail Smelter Arbitration*⁷³⁵ and the work of the ILC⁷³⁶ – according to which the cost of pollution should be borne by the person responsible for causing the pollution.⁷³⁷

⁷²⁹ See IACtHR 2017 Advisory Opinion, paragraphs 175-180, Annex 235.

⁷³⁰ See UNFCCC, Article 3(1) (“The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties”), Annex 50; Vienna Convention for the Protection of the Ozone Layer, Article 2(1) (“The Parties shall take appropriate measures in accordance with the provisions of this Convention and of those protocols in force to which they are party to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer”), Annex 35; Montreal Protocol on Substances that Deplete the Ozone Layer, 16 September 1987, 1522 UNTS 3, Article 2, Annex 39.

⁷³¹ See Rio Declaration, Principle 15 (“Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”), Annex 157.

⁷³² See *Iron Rhine (“IjzerenRijn”) Railway Case (Belgium v the Netherlands)*, Award 24 May 2005, PCA Case No. 2003-02, paragraph 59 (“where development may cause significant harm to the environment there is a duty to prevent, or at least mitigate such harm. This duty, in the opinion of the Tribunal, has now become a principle of general international law”) (emphasis added), Annex 303.

⁷³³ See paragraph 226 above.

⁷³⁴ See paragraph 226 above.

⁷³⁵ See *Trail Smelter Arbitration*, page 1965, Annex 300.

⁷³⁶ See ILC Commentaries on the Draft Principles on the Allocation of Loss in the Case of Transboundary Harm arising out of Hazardous Activities, page 61, Annex 440.

⁷³⁷ See Principles of International Environmental Law, page 240, Annex 472; R. Chemain, *The ‘Polluter Pays’ Principle* in THE LAW OF INTERNATIONAL RESPONSIBILITY, ed. James Crawford et al. (Oxford University Press, 2010), page 879, Annex 482.

338. Recognition of the principles set out above, in the context of the climate emergency, however, is only of limited utility without States taking practical steps to implement them. Thus, States must observe certain practical requirements in order to effectively ensure the right to life and survival of the most affected regions and populations, including:
- a. providing access to environmental information. As the UN Special Rapporteur observes, this has been implemented in the form of legislation, regulations, policies, programmes, publishing of reports in websites and a national environmental information system across many States;⁷³⁸ and
 - b. providing access to justice. As the UN Special Rapporteur explains, this can take the form of providing standing to sue, removing economic barriers to doing so and remedying a lack of judicial expertise in environmental matters. Many States either have specialised adjudicative authorities for dealing with environmental issues or national human rights institutions in the form of human rights commissions or human rights ombudsperson to deal with such issues.⁷³⁹
339. Finally, as explained in **Section VI.K** above, States are under an obligation to make full reparations for breaches of their international obligations with respect to environmental matters, taking into account the particular situations of a given State or its people, including by the provision of financial and non-financial resources.

⁷³⁸ See Report of the United Nations Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, A/HRC/43/53, 30 December 2019, page 5, Annex 425.

⁷³⁹ See Report of the United Nations Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, A/HRC/43/53, 30 December 2019, page 7, Annex 425.

VIII. CONCLUSION

340. For the reasons described above, Barbados respectfully invites the Court to make an advisory opinion:

- a. in answer to the first question under Part 1 under heading F (“[w]hat considerations and principles should states and international organisations take into account, collectively and regionally, when analysing shared but differentiated responsibilities in the context of climate change, from the perspective of human rights and intersectionality?”) that States party to the American Convention on Human Rights are obliged under international law to:
 - i. take into account international environmental law norms when analysing their responsibilities in the context of climate change from the perspective of human rights;
 - ii. ensure that activities within their jurisdiction and control do not harm the environment of other State;
 - iii. protect and preserve their own internal environment and their own peoples from activities within their jurisdiction and control;
 - iv. protect and preserve the climate system and the other parts of environment in areas beyond national control;
 - v. mitigate and repair harm already caused or that will be caused by anthropogenic greenhouse gas emissions, whether or not they have initially caused such harm;
 - vi. cooperate to protect and preserve the climate system and other parts of the environment; and
 - vii. pay for loss and damage caused by their anthropogenic gas emissions.
- b. in answer to the second question under Part 1 under heading F (“[h]ow should states act, both individually and collectively, to guarantee the right to redress for the damage caused by their acts and omissions in relation to the climate

emergency, taking into account considerations of equity, justice and sustainability?”) that States party to the American Convention on Human Rights are obliged under international law to:

- i. provide full monetary reparation to other States for climate change damage caused by their wrongful acts in breach of the obligations;
 - ii. provide full monetary reparation to other States for harm attributable to them, in whole or in part;
 - iii. offer other redress for damage due to climate change by *inter alia* contributing to climate change funds, offering other financial resources and ensuring transfers of technology; and
 - iv. take account of the circumstances of affected States and peoples, including in particular, small island States that are particularly affected or vulnerable to the adverse effects of climate change as well as future generations, in order to fulfil the requirement to make full reparation and other assistance to address climate change.
- c. in answer to the first question under Part 2 under heading F (“[h]ow should inter-State cooperation obligations be interpreted?”) that States party to the American Convention on Human Rights are obliged under international law to interpret and apply inter-State cooperation obligations to include:
- i. a duty to notify;
 - ii. a duty to consult and negotiate;
 - iii. a duty to exchange information; and
 - iv. a duty to assist in the mitigation, adaptation and reparation of the consequences of climate change;
- d. in answer to the second question under Part 2 under heading F (“[w]hat obligations and principles should guide State actions in order to ensure the right to life and survival of the most affected regions and populations in the different countries and in the region?”) that States party to the American

Convention on Human Rights are obliged under international law to be guided by the obligations and principles set out in the answer to the first three questions under heading F.

18 December 2023

A handwritten signature in black ink, appearing to read 'D Forde', written over a dotted line.

Ms Donna Forde, Director of Foreign Service

Agent for Barbados

A handwritten signature in black ink, appearing to read 'Robert G Volterra', written over a dotted line.

Professor Robert G Volterra, Partner at Volterra Fietta and Visiting Professor of International
Law at University College London

Co-Agent for Barbados