INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA

2023

Public sitting
held on Tuesday, 12 September 2023, at 10 a.m.,
at the International Tribunal for the Law of the Sea, Hamburg,
President Albert J. Hoffmann presiding

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)

Verbatim Record

Uncorrected
Present:

President: Albert J. Hoffmann
Vice-President: Tomas Heidar

Registrar: Ximena Hinrichs Oyarce
List of delegations:

REQUESTING ORGANIZATION

Commission of Small Island States on Climate Change and International Law (COSIS)
Mr Gaston Browne, Prime Minister of Antigua and Barbuda, Co-Chair of COSIS
Mr Kausea Natano, Prime Minister of Tuvalu, Co-Chair of COSIS
Mr Arnold Kiel Loughman, Attorney General, Republic of Vanuatu
Mr Ronald Sanders, Ambassador to the United States of America and the Organization of American States and High Commissioner to Canada of Antigua and Barbuda
Mr Tufoua Panapa, Chief Advisor to the Prime Minister, Tuvalu
Mr Kevon Chand, Senior Legal Advisor, Permanent Mission of Vanuatu to the United Nations
Mr Payam Akhavan, SJD OOnt FRSC, Professor of International Law, Chair in Human Rights, and Senior Fellow, Massey College, University of Toronto; member, Permanent Court of Arbitration; associate member, Institut de droit international; member, Bar of New York; member, Law Society of Ontario
Ms Catherine Amirfar, Debevoise & Plimpton LLP; member, Bars of New York and of the Supreme Court of the United States; Immediate Past President, American Society of International Law
Mr Conway Blake, Debevoise & Plimpton LLP; solicitor advocate of the senior courts of England and Wales; member, Bar of the Eastern Caribbean Supreme Court
Ms Jutta Brunnée, Dean, Faculty of Law, University of Toronto; University Professor; associate member, Institut de droit international
Mr Eden Charles, Special Representative of the Secretary-General, International Seabed Authority; Lecturer of Law, University of the West Indies; Chair, Advisory Board, One Ocean Hub, UK Research and Innovation
Ms Naima Te Maile Fifita, Founder, Moana Tasi Project; 2023 Sue Taei Ocean Fellow
Mr Vaughan Lowe KC, Emeritus Chichele Professor of International Law, University of Oxford; barrister, Essex Court Chambers; member, Institut de droit international; member, Bar of England and Wales
Mr Makane Moïse Mbengue, Professor of International Law, University of Geneva; member, Curatorium of the Hague Academy of International Law; associate member, Institut de droit international
Mr Brian McGarry, Assistant Professor of Public International Law, Grotius Centre for International Legal Studies, Leiden University; member, Bar of New York
Ms Phoebe Okowa, Professor of International Law, Queen Mary University, London; member, International Law Commission; advocate, High Court of Kenya
Ms Nilüfer Oral, Director, Center for International Law, National University of Singapore; member, International Law Commission; associate member, Institut de droit international
Mr Zachary Phillips, Crown Counsel, Attorney General’s Chambers, Ministry of Legal Affairs, Antigua and Barbuda; member, Bar of Antigua and Barbuda
Mr Jean-Marc Thouvenin, Professor, University Paris Nanterre; Secretary-General, The Hague Academy of International Law; associate member, Institut de droit international; member, Paris Bar; Sygna Partners
Ms Philippa Webb, Professor of Public International Law, King’s College, London; Barrister, Twenty Essex; member, Bar of England and Wales; member, Bar of New York; member, Bar of Belize
Ms Margaretha Wewerinke-Singh, Associate Professor of Sustainability Law, University of Amsterdam; Adjunct Professor of Law, University of Fiji; member, Bar of Vanuatu; Blue Ocean Law
Ms Sarah Cooley, Director of Climate Science, Ocean Conservancy
Ms Shobha Maharaj, Science Director, Terraformation
Mr Falefou Tapugao, Private Secretary to the Prime Minister, Tuvalu
Mr Penivao Penete, Private Secretary to the Prime Minister, Tuvalu
Mr Alan Boyle, Emeritus Professor of Public International Law, Edinburgh Law School
Mr David Freestone, Adjunct Professor and Visiting Scholar, George Washington University School of Law; Co-Rapporteur of the International Law and Sea-Level Rise Committee, International Law Association; Executive Secretary, Sargasso Sea Commission
Ms Rozemarijn Roland-Holst, Assistant Professor in International Environmental Law, Durham Law School
Ms Jessica Joly Hébert, Ph.D. candidate, Université Paris Nanterre; member, Bar of Quebec
Ms Charlotte Ruzzica de la Chaussée, member, Bar of New York
Mr Jack McNally, Solicitor, Supreme Court, New South Wales; Research Fellow, University of New South Wales
Ms Melina Antoniadis, barrister and solicitor, Law Society of Ontario; transferring lawyer, Bar of England and Wales
Mr Romain Zamour, Debevoise & Plimpton LLP; member, Bar of New York; member, Paris Bar
Mr Duncan Pickard, Debevoise & Plimpton LLP; member, Bar of New York
Ms Perpétua B. Chéry, Debevoise & Plimpton LLP; member, Bar of New York
Ms Sara Kaufhardt, Debevoise & Plimpton LLP; member, Bar of New York
Ms Evelin Caro Gutierrez, Debevoise & Plimpton LLP; member, Bar of New York
Ms Alix Meardon, Debevoise & Plimpton LLP; member, Bar of New York
THE PRESIDENT: Please be seated. Good morning. The Tribunal will now continue its hearing in the Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law. This morning we will hear further oral statements on behalf of the Commission of Small Island States on Climate Change and International Law.

Before I give the floor to the first speaker, I would like to inform you that questions from a Judge were communicated to two delegations in writing yesterday. The text of the questions was also posted on the website of the Tribunal. I now give the floor to Mr McGarry to make his statement.

You have the floor.

MR McGARRY: Mr President, distinguished members of the Tribunal, it is an honour to appear before you this morning on behalf of COSIS – the Commission of Small Island States on Climate Change and International Law.

At the close of yesterday’s hearing, Professor Mbengue showed how the object and purpose of the United Nations Convention on the Law of the Sea, or UNCLOS, are inseparable from the factual and legal problems posed by climate change. And as our colleagues will demonstrate today, obligations under UNCLOS to protect and preserve the marine environment are also inseparable from the impacts of climate change upon the uses and resources of our shared ocean.

It thus falls quite plainly within the Tribunal’s mandate, as the guardian of this “constitution for the ocean”,¹ to clarify these obligations in regard to a dire threat to the health and sustainability of the ocean. Indeed, the vast majority of States Parties to UNCLOS have either expressly agreed that the Tribunal has and should exercise jurisdiction in these proceedings, or else have not challenged this point.

I will therefore briefly address two threshold questions that have not been seriously contested before the Tribunal: firstly, that you have jurisdiction to render your advisory opinion in these proceedings; and secondly, that the request submitted by COSIS is admissible and should be answered.

As the Tribunal observed in its 2015 advisory opinion – and as emphasized yesterday by Professor Akhavan – the Rules of the Tribunal outline three prerequisites for the exercise of its advisory jurisdiction.²

The first prerequisite is that “an international agreement related to the purposes of the Convention specifically provides for the submission to the Tribunal of a request for an advisory opinion.”³ This is satisfied by article 1 of COSIS’s constitutive Agreement, as the Tribunal can see on the screen.

² Contra Brazil Written Statement, ¶ 8; China Written Statement, ¶¶ 6-25; India Written Statement, ¶¶ 5-8.
³ Request for an Advisory Opinion submitted by the Sub-Regional Fisheries Commission (SRFC), Case No. 21, Advisory Opinion, 2015 ITLOS Rep. 4 (2 April) (“SRFC Advisory Opinion”), ¶ 60; see also ITLOS, Rules of the Tribunal, articles 138(1); COSIS Written Statement, ¶ 40.
Article 1(3) establishes COSIS’s mandate, in keeping with Part XII of UNCLOS, “to promote and contribute to the definition, implementation and progressive development of rules and principles of international law concerning climate change, including, but not limited to, the obligations of States relating to the protection and preservation of the marine environment.” This mandate is why the International Court of Justice in June of this year considered COSIS “likely to be able to furnish information on the question before the Court” in its own advisory proceedings relating to climate change.4

The second prerequisite is that “the request must be transmitted to the Tribunal by a body authorized by or in accordance with the agreement.”5 This is satisfied by COSIS’s unanimous decision authorizing its Co-Chairs to submit the present request to the Tribunal in accordance with articles 2(2), 3(3), and 3(5) of the COSIS Agreement.

The final prerequisite is that the requested opinion is “given on ‘a legal question’.”6 The questions submitted to the Tribunal concern obligations under UNCLOS, which are inherently legal obligations. As the International Court of Justice and the Seabed Disputes Chamber of this Tribunal have found, “questions ‘framed in terms of law and raising problems of international law […] are by their very nature susceptible of a reply based on law’.”7

In its 2015 advisory opinion, the Tribunal observed that a “further question” may arise under article 21 of its Statute, as to whether “the questions posed […] constitute matters which fall within the framework” of the requesting organization’s constitutive agreement.8 No such issue arises here, as there is plainly a “sufficient connection” between the submitted request and the “purposes and principles” of COSIS’s constitutive Agreement,9 which anchor its ongoing work as an organization grappling with an intergenerational threat to the health of our ocean. By virtue of its representation of small island States, the relationship between the mandate of COSIS and the submitted request could not be clearer.

In light of the States Parties’ overwhelming consensus regarding the singular import of the questions before the Tribunal, there is simply no doubt as to your competence here. As I will now show the Tribunal, the admissibility of the questions before you, like your jurisdiction, is also a straightforward matter.

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4 Letter from Philippe Gautier, Registrar of the International Court of Justice, to the Commission of Small Island States on Climate Change and International Law, No. 1596/14, 19 June 2023.
5 SRFC Advisory Opinion, ¶ 60; see also ITLOS, Rules of the Tribunal, articles 138(2); COSIS Written Statement, ¶ 41.
6 Id.; see also ITLOS, Rules of the Tribunal, articles 138(1); COSIS Written Statement, ¶ 42.
7 Accordance with International Law of the Unilateral Declaration of Independence in Respect of Kosovo, Advisory Opinion, 2010 ICJ REP. 403 (22 July), ¶ 25; Responsibilities and Obligations of States with Respect to Activities in the Area, Case No. 17, Advisory Opinion, 2011 ITLOS REP. 10 (1 February), ¶ 39.
8 SRFC Advisory Opinion, ¶ 67.
9 Id., ¶ 68 (quoting Legality of the Use by a State of Nuclear Weapons in Armed Conflict, Advisory Opinion, 1996 ICJ REP. 66 (8 July), ¶ 22).
As both the Tribunal and the International Court of Justice have observed, a request for an advisory opinion should not be refused except for “compelling reasons.” The present proceedings do not give the Tribunal any such basis to decline to answer these questions. To the contrary, there are clearly compelling reasons for you to answer them. Indeed, the request submitted by COSIS is not merely admissible – it is necessary.

Simply put, that is the end of the matter. Yet a few States Parties have offered three ways to complicate the Tribunal’s analysis on this point.

Firstly, some have queried whether the submitted questions concern existing law in force, *lex lata*, or else the law as it “ought” to be, *lex ferenda*. Quite evidently, a request to clarify the current obligations of States Parties does not require the Tribunal to adopt a legislative role. Rather, as we heard yesterday – and as will be elaborated by my colleagues today – the answers to the submitted questions are found in the text and history of UNCLOS and the rules and principles reflected therein.

Secondly, a few States consider that the questions concerned are overly broad. They thus ask the Tribunal to judge the clarity of these questions not by their terms, but by their scope. On this point, some contend that these questions should have referred to specific provisions of the COSIS Agreement – a more formalistic standard than the Tribunal applied in its 2015 advisory opinion. As the Tribunal found, “[t]he questions need not necessarily be limited to the interpretation or application of any specific provision” of the treaty at hand, as “there is no reason why […] article 21 of the Statute should be interpreted restrictively.”

A request submitted to the Tribunal on “the specific obligations of States Parties” regarding the marine environment is, in the words of the Tribunal, “clear enough to enable it to deliver an advisory opinion.” The terms of the questions before you are indeed clear, as is the crucial importance of your answer.

Finally, it is irrelevant that third States did not participate in the drafting and adoption of these questions. The Tribunal and the International Court of Justice have made clear that the authorization of third States is not required before seeking an advisory opinion, a particularly impractical threshold for clarifying general obligations under

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10 *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 1996 ICJ REP. 226 (8 July), ¶ 14; SRFC Advisory Opinion, ¶ 71. See also COSIS Written Statement, ¶¶ 45-46.
11 See France Written Statement, ¶ 15; United Kingdom Written Statement, ¶ 24.
12 See United Kingdom Written Statement, ¶¶ 22-23.
13 See France Written Statement, ¶ 16.
14 SRFC Advisory Opinion, ¶ 68.
16 SRFC Advisory Opinion, ¶ 72 (citing *Conditions of Admission of a State to Membership in the United Nations (articles 4 of the Charter)*, Advisory Opinion, 1948 ICJ REP. 57, 61 (28 May)). See also COSIS Written Statement, ¶ 47.
17 *Contra* Brazil Written Statement, ¶ 9; France Written Statement, ¶¶ 22-24; United Kingdom Written Statement, ¶ 18-19.
a Convention with 169 parties. The only notable limitation in this respect arises when
the questions address an exclusively bilateral dispute\(^{19}\) – a far cry from proceedings
relating to climate change and other common concerns of humankind.

COSIS submitted the present request based on its aforementioned mandate to
“promote and contribute to the definition [...] of rules and principles of international
law concerning climate change.”\(^{20}\) This follows from the principle of common but
differentiated responsibilities, under which all States, however small, have
obligations to implement regarding climate change.

There is no question as to the urgency of the crisis that has led to COSIS’s creation,
nor to the essential nature of this organization’s purposes and functions. As
previously noted, the International Court of Justice recognized COSIS’s character as
an international organization when it admitted it to participate in the Court’s own
advisory proceedings. This is consistent with the Court’s longstanding approach of
assessing an organization’s “purposes and functions as specified or implied in its
constituent documents and developed in practice.”\(^{21}\)

The object and purpose of the COSIS Agreement is reflected in its Preamble’s call to
“take immediate action to protect and preserve the climate system and marine
environment.”\(^{22}\) As explained earlier, the Agreement gives effect to these purposes
by setting out the functions of COSIS in article 1 and expressly specifying these
functions in article 2.\(^{23}\)

This was clearly confirmed in practice during the first year of the organization’s
existence, when it unanimously adopted the present request in furtherance of these
purposes and functions.\(^{24}\) Since taking that decision, COSIS has tripled its
membership and now includes more parties than the Sub-Regional Fisheries
Commission that requested and received the Tribunal’s 2015 advisory opinion.

Mr President, members of the Tribunal, whatever questions might arise in future
proceedings, there can be no question as to the legitimacy of the present
proceedings. Nine States, having joined COSIS to combine their efforts to protect
and preserve the marine environment from a common threat, have accordingly
fulfilled the requirements to stand before the Tribunal today. After negotiating for 30
years as this threat endangered its members’ way of life – and indeed, very
existence – COSIS asks the Tribunal to assist it in the performance of its vital
functions\(^{25}\) and to authoritatively interpret the Constitution for the Ocean.

\(^{19}\) See Western Sahara, Advisory Opinion, 1975 ICJ REP. 12 (16 October), ¶¶ 33, 38; Legal
Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion,
2004 ICJ REP. 134 (9 July), ¶¶ 47, 50.
\(^{20}\) COSIS Agreement, articles 1(3).
\(^{21}\) Reparation for Injuries Suffered in the Service of the United Nations, Advisory Opinion, 1949 ICJ
REP. 174 (11 April), 180.
\(^{22}\) COSIS Agreement, Preamble.
\(^{23}\) See COSIS Agreement, articles 1(3), 2(2).
\(^{24}\) See Decision of the Third Meeting of the Commission of Small Island States on Climate Change
and International Law, 26 August 2022.
\(^{25}\) See SRFC Advisory Opinion, ¶ 77; Legal Consequences of the Separation of the Chagos
In conclusion, there are no compelling reasons to decline to exercise your well-founded jurisdiction over this request. To the contrary, there is a critical need to contribute your expertise, rigour and scrutiny to these questions, to clarify specific obligations regarding the marine environment, and to safeguard the health of our ocean and the sustainability of the most vulnerable coastal populations.

The few objections posed in these proceedings have sought to complicate this simple legal analysis while obscuring the gravity and inequity of the specific threats facing small island States. In contrast, a diverse and nearly unanimous majority of States Parties agree that the Tribunal should proceed to directly answer the questions at hand.

Mr President, honourable members of the Tribunal, this will close my presentation. I thank you for your attention and ask that you please give the floor to Professor Jutta Brunnée, who will begin to detail COSIS’s position on the urgent questions before you.

THE PRESIDENT: Thank you. Mr McGarry, I now give the floor to Ms Brunnée to make her statement.

You have the floor.

MS BRUNNÉE: Mr President, distinguished members of the Tribunal, it is an honour to appear before you on behalf of COSIS.

My presentation will focus on a matter that is uniquely within the purview of this Tribunal: the due diligence that is required of States Parties in the context of their obligations under Part XII of UNCLOS to protect and preserve the marine environment in the face of climate change. This presentation will be the first of a series of three, together with the presentations of Professor Jean-Marc Thouvenin and Ms Catherine Amirfar, formulating COSIS’s position on the first question before the Tribunal. I will proceed as follows:

First, I will outline the key parameters of the due diligence incumbent upon States under Part XII, highlighting the significant degree of agreement on those parameters in the written statements submitted to the Tribunal.

Second, I will show that, in the context of the high probability of disastrous harm from climate change, these parameters of due diligence entail objective and stringent requirements for the conduct of States Parties.

Third, due diligence is not a matter of unbounded national discretion. While the requirements of due diligence in the context of Part XII may be modulated by factors that are specific to the obligated State, the relevant factors, once again, are objective ones.

In sum, due diligence entails binding, objective standards of conduct. It is for this Tribunal, building on its jurisprudence on Part XII of UNCLOS, to specify what due diligence requires of States in the face of the high probability of disastrous harm to the marine environment from greenhouse gas emissions and climate change.
Part XII of UNCLOS is dedicated to the protection and preservation of the marine environment. Prior jurisprudence has confirmed that due diligence provides the standard of conduct in this context, as is helpfully set out in the *South China Sea* arbitral award.\(^{26}\)

The *South China Sea* tribunal considered that the content of the general obligation in article 192 is informed by the corpus of international law.\(^ {27}\) It cited with approval the conclusion of the International Court of Justice (ICJ) in its *Nuclear Weapons* Advisory Opinion that States are required to “ensure that activities within their jurisdiction or control respect the environment of other States or of areas beyond national control.”\(^ {28}\) The arbitral tribunal went on to observe that “the content of the general obligation in Article 192 is further detailed in subsequent provisions of Part XII, including Article 194.”\(^ {29}\) For present purposes, the main point is that articles 192 and 194(2) entail “obligations not only in relation to activities directly taken by States and their organs, but also in relation to ensuring activities within their jurisdiction and control do not harm the marine environment.”\(^ {30}\) The arbitral tribunal observed that this Tribunal’s *Fisheries* Advisory Opinion, in drawing on the ICJ’s *Pulp Mills* judgment and the Seabed Chamber’s *Area* Advisory Opinion, noted that “the obligation to ‘ensure’” requires States to exercise due diligence.\(^ {31}\)

The written statements of States and international organizations evidence broad agreement around the proposition that various provisions in Part XII are expressions of the obligation under general international law to prevent harm to the environment,\(^ {32}\) and that at least some of the provisions require States to exercise due diligence.\(^ {33}\)

\(^ {26}\) South China Sea Arbitration (Republic of the Philippines v. People’s Republic of China), PCA Case No 2013–19, Award on the Merits, 12 July 2016 ("South China Sea Award").

\(^ {27}\) Id., ¶ 941.

\(^ {28}\) Id. (citing Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 ICJ Rep 226 ("Nuclear Weapons Advisory Opinion"), ¶ 29).

\(^ {29}\) Id., ¶ 942.

\(^ {30}\) Id., ¶¶ 943, 944.


\(^ {32}\) See e.g., African Union Written Statement, ¶¶ 14-15; Canada Written Statement, ¶ 55; Democratic Republic of the Congo Written Statement, ¶ 171; Republic of Djibouti Written Statement, ¶¶ 48, 51, 53-55; Egypt Written Statement, ¶ 40; European Union Written Statement, ¶ 24; France Written Statement, ¶¶ 101, 102; Indonesia Written Statement, ¶ 67; International Union for Conservation of Nature Written Statement, ¶ 137; New Zealand Written Statement, ¶ 69; Mauritius Written Statement, ¶ 78; Micronesia Written Statement, ¶ 60; Mozambique Written Statement, ¶¶ 3.47, 3.85; Portugal Written Statement, ¶ 64; Rwanda Written Statement, ¶¶ 177-181; Singapore Written Statement, ¶ 30; United Kingdom Written Statement, ¶ 65.

\(^ {33}\) See e.g., African Union Written Statement, ¶ 169; Bangladesh Written Statement, ¶ 37; Belize Written Statement, ¶¶ 59(c), 68; Canada Written Statement, ¶¶ 54, 62(v); Chile Written Statement, ¶ 40; Democratic Republic of the Congo Written Statement, ¶ 141; Egypt Written Statement, ¶ 30; European Union Written Statement, ¶ 14; France Written Statement, ¶¶ 103, 143; International Union for Conservation of Nature Written Statement, ¶ 75; Korea Written Statement, ¶¶ 10, 15, 29; Latvia Written Statement, ¶¶ 14, 18; Mauritius Written Statement, ¶¶ 68, 79; Micronesia Written Statement, ¶ 39; Mozambique Written Statement, ¶¶ 3.56, 3.61, 3.87(d); Nauru Written Statement, ¶ 52; The Netherlands Written Statement, ¶ 3.2; New Zealand Written Statement, ¶ 69; Portugal Written Statement, ¶ 37; Singapore Written Statement, ¶ 30; United Kingdom Written Statement, ¶ 65; United States Written Statement, ¶ 38; United Nations Written Statement, ¶ 29; Venezuela Written Statement, ¶ 61; Viet Nam Written Statement, ¶ 63; World Wildlife Fund Written Statement, ¶ 51.
The relevant obligations to prevent harm to the marine environment are triggered by the risk of such harm. And, as affirmed in many of the written statements, their stringency is determined in important part by the degree of risk and the foreseeability and severity of potential harm. As a result, States are subject to a stringent obligation, to quote the Seabed Chamber, “to deploy adequate means, to exercise best possible efforts, to do the utmost.”

This obligation to do the utmost must be understood in the context of the goal of protecting and preserving the marine environment, bearing in mind 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.” And so “vigilance and prevention are required on account of the often irreversible character of damage to the environment.”

There is broad agreement across the written statements that, in keeping with the jurisprudence of international courts and tribunals, due diligence in the context of the general obligation to prevent harm to the environment requires not only the adoption of appropriate rules and measures but also “a certain level of vigilance in their enforcement and the exercise of administrative control.”

Similarly, there is consensus that due diligence entails substantive requirements, such as the adoption of appropriate measures to prevent harm, as well as procedural requirements. Relevant procedural requirements include the obligations to

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34 See, e.g., COSIS Written Statement, ¶ 232; see also ILC, Prevention of Transboundary Harm from Hazardous Activities, UN Doc. A/56/10 (2001), articles 1.
35 See, e.g., COSIS Written Statement, ¶¶ 54, 232, 281, 284, 361, 425; see also African Union Written Statement, ¶¶ 171, 228; Bangladesh Written Statement, ¶ 37: Belize Written Statement, ¶ 68; Canada Written Statement, ¶ 54; European Union Written Statement, ¶ 20; France, ¶¶ 107, 144; International Union for Conservation of Nature Written Statement, ¶ 79; Korea Written Statement, ¶ 10; Mauritius Written Statement, ¶ 80; Mozambique Written Statement, ¶ 3.62; New Zealand Written Statement, ¶ 58; Sierra Leone Written Statement, ¶ 64; Singapore Written Statement, ¶ 33; United Kingdom Written Statement, ¶¶ 66, 67.
36 Area Advisory Opinion, ¶ 110.
37 Nuclear Weapons Advisory Opinion, ¶ 29.
39 See Pulp Mills Judgment, ¶ 197; Area Advisory Opinion, ¶ 114.
40 See COSIS Written Statement, ¶ 278; see also African Union Written Statement, ¶ 174; Belize Written Statement, ¶ 59(c); Canada Written Statement, ¶ 57; Egypt Written Statement, ¶ 49; European Union Written Statement, ¶ 20; France Written Statement, ¶ 115; International Union for Conservation of Nature Written Statement, ¶ 78; Korea Written Statement, ¶ 10; Micronesia Written Statement, ¶ 41; Nauru Written Statement, ¶ 40; Singapore Written Statement, ¶ 30; United Kingdom Written Statement, ¶ 66; Vietnam Written Statement, ¶ 4.4.
41 See COSIS Written Statement, ¶¶ 277, 302-308; see also European Union Written Statement, ¶¶ 16-38; France Written Statement, ¶ 158; Indonesia Written Statement, ¶ 66; Micronesia Written Statement, ¶ 45; Rwanda, ¶¶ 197-206, 236; United Kingdom Written Statement, ¶ 64; see also Pulp Mills Judgment, ¶¶ 77-79; ILC, Commentaries on the Articles on Prevention of Transboundary Harm from Hazardous Activities, UN Doc. A/56/10 (2001), General Commentary, ¶ 1; see generally Jutta Brunnée, Procedure and Substance in International Environmental Law, COLLECTED COURSES OF THE HAGUE ACADEMY OF INTERNATIONAL LAW Vol. 405 (2020), pp. 124-129, 140-141.
undertake environmental impact assessments, and to notify and consult other States. States must also cooperate with one another, in good faith, directly or through relevant international organizations, in order to protect and preserve the marine environment.

Another area of agreement in the written statements is that due diligence is a variable and contextual standard. As such, the conduct that is required of States is determined by several factors. In addition to the level of risk and the foreseeability and severity of potential harm to which I have already referred, the state of science, relevant international rules and standards, and the relevant State’s capacities are key factors.
From the contextual nature of due diligence follows that the attendant obligations do not have a fixed content but rather evolve over time, depending on the situation and as the salient factors evolve.\(^5\) For example, and crucially, due diligence requirements become more stringent as risk increases or scientific understanding of the severity of potential harm evolves.\(^5\) This point too finds wide support in the written statements.\(^5\)

Finally, as is implicit in the preceding point, the exercise of due diligence is a continuous duty.\(^5\)

Mr President, it is for this Tribunal to clarify what these generally accepted considerations entail when brought to bear on due diligence in relation to obligations under UNCLOS in the context of climate change. In what follows, I submit that they entail concrete requirements for the conduct of States and that States Parties to UNCLOS, therefore, are subject to stringent obligations with objective parameters.

First of all, as I have already noted, and as many of the written statements concur, the stringency of the due diligence obligations in Part XII is determined in important part by the degree of risk and the foreseeability and severity of potential harm, and so by objective factors.

The observations of the International Law Commission in the commentaries to the 2001 Draft Articles on Prevention of Transboundary Harm are on point: “The notion of risk is … to be taken objectively, as denoting an appreciation of possible harm resulting from an activity which a properly informed observer had or ought to have had.”\(^5\)

The ILC defines the relevant risk as encompassing a spectrum ranging from “a high probability of significant transboundary harm” to “a low probability of disastrous transboundary harm.”\(^5\) As the Commission rightly points out in the commentary on

\(^{50}\) See COSIS Written Statement, ¶¶ 54, 340; see also Bangladesh Written Statement, ¶ 37; Belize Written Statement, ¶ 68; Canada Written Statement, ¶ 36; Chile Written Statement, ¶¶ 80, 118(5); Egypt Written Statement, ¶ 41; International Union for Conservation of Nature Written Statement, ¶ 79; Mauritius Written Statement, ¶ 80; Micronesia Written Statement, ¶ 42; Rwanda Written Statement, ¶ 192; Sierra Leone Written Statement, ¶ 64; United Kingdom Written Statement, ¶ 67; United Nations Environment Programme Written Statement, ¶ 12; see also Area Advisory Opinion, ¶ 117; Gabčíkovo-Nagymaros Judgment, ¶ 140; ILC, Commentaries on the articles on the Prevention of Transboundary Harm from Hazardous Activities, UN Doc. A/56/10 (2001), Articles 3, ¶ 11.

\(^{51}\) Gabčíkovo-Nagymaros Judgment, ¶ 140; Area Advisory Opinion, ¶ 117.

\(^{52}\) See African Union Written Statement, ¶¶ 171, 228; Bangladesh Written Statement, ¶ 37; Belize Written Statement, ¶ 68; Canada Written Statement, ¶¶ 36, 54; Chile Written Statement, ¶¶ 79, 80, 96, 118(5); Egypt Written Statement, ¶ 41; European Union Written Statement, ¶ 20; International Union for Conservation of Nature Written Statement, ¶ 79; Korea Written Statement, ¶ 10; Mauritius Written Statement, ¶ 80; Mozambique Written Statement, ¶ 3.62; Sierra Leone Written Statement, ¶ 64; Singapore Written Statement, ¶ 33; United Kingdom Written Statement, ¶ 67.

\(^{53}\) See Pulp Mills Judgment, ¶ 205; 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, 2015 ICJ REP. 665 (16 December) (“Construction of a Road Judgment”), ¶ 161; see also COSIS Written Statement, ¶ 280.


\(^{55}\) Id., articles 2(a).
this definition, it is “the combined effect of ‘risk’ and ‘harm’ which sets the
threshold.”\textsuperscript{56} It is also what drives what due diligence requires of States.

The degree of risk, the foreseeability of possible harm, and the severity of that harm
are elucidated by scientific evidence.\textsuperscript{57} As the ILC observes, when it comes to
threats of serious or irreversible harm, the precautionary principle instructs that lack
of full scientific certainty ought not to be a reason to delay steps to protect the
environment.\textsuperscript{58} In the context of activities in the Area, the Seabed Chamber
confirmed that “the precautionary approach is also an integral part of the general
obligation of due diligence.”\textsuperscript{59}

Distinguished members of the Tribunal, while precaution is an essential part of the
protection and preservation of the marine environment, it stands to reason that the
situation at hand is no longer one of precaution. The current state of evidence is
such that we know with a frightening degree of confidence that the ocean’s
absorption of excess heat and CO\textsubscript{2} due to uncontrolled greenhouse gas emissions
has progressed beyond the risk spectrum contemplated by the ILC. To paraphrase,
we face \textit{a high probability of disastrous harm} to the marine environment, even
“existential threats.”\textsuperscript{60}

My colleague, Catherine Amirfar, will provide you with a detailed account of what the
scientific consensus entails in terms of actions required of States at this stage. Let
me simply say this: the content of States’ due diligence obligations under Part XII of
UNCLOS must be determined on an objective scientific basis and therefore in
accordance with the current scientific consensus on the high probability of disastrous
climate harm.

Distinguished members of the Tribunal, as I mentioned, the obligations contained in
articles 192 and 194(2) have been found to constitute obligations of due diligence,
and some States have suggested that due diligence applies more broadly.\textsuperscript{61} I hope
to have shown that, while it may be true in general that, as the Seabed Chamber put
it, due to their variable content, due diligence obligations “may not easily be
described in precise terms”,\textsuperscript{62} that does not apply in the calamitous circumstances at
issue in this advisory opinion request. It is \textit{not} the case, therefore, that the content of
the due diligence obligations at issue here is “highly general,” as some written
statements suggest.\textsuperscript{63} Instead, it is surely right that, in the context of greenhouse gas

\textsuperscript{56} \textit{Id.}, articles 2, ¶ 2; see also France Written Statement, ¶ 108.

\textsuperscript{57} \textit{Gabčíkovo-Nagymaros Judgment}, ¶ 140; \textit{Area Advisory Opinion}, ¶ 117; see also COSIS Written
Statement, ¶¶ 337-340.

\textsuperscript{58} ILC, Commentaries on the Articles on the Prevention of Transboundary Harm from Hazardous
Activities, UN Doc. A/56/10 (2001), articles 10, ¶¶ 5-7; Rio Declaration on Environment and

\textsuperscript{59} \textit{Area Advisory Opinion}, ¶ 131.

\textsuperscript{60} African Union Written Statement, ¶ 229.

\textsuperscript{61} See European Union Written Statement, ¶ 14; Mauritius Written Statement, ¶ 69; Mozambique
Written Statement, ¶ 3.56; New Zealand Written Statement, ¶ 57; Sierra Leone Written Statement,
¶ 50; United Kingdom Written Statement, ¶ 68.

\textsuperscript{62} \textit{Area Advisory Opinion}, ¶ 117; SRFC Advisory Opinion, ¶ 132.

\textsuperscript{63} See e.g., European Union Written Statement, ¶ 40.
emissions and climate change, the relevant standards are objective,\textsuperscript{64} specific and “particularly severe.”\textsuperscript{65}

Further, regardless of how you characterize the applicability of due diligence in the context of UNCLOS, the text of UNCLOS in Part XII goes beyond due diligence. In particular, article 194(1) could not be clearer and stronger regarding the stringency of the obligations placed upon States Parties, as Professor Thouvenin will explain shortly.

So far, I have shown that due diligence obligations in Part XII are obligations with objective, science-driven parameters. I also noted earlier that due diligence is contextual in that it may be modulated by factors that are specific to the obligated State. Contrary to what appears to be suggested in some written statements,\textsuperscript{66} this does not mean that States have unbounded discretion in complying with their obligations under Part XII. While contextual, the parameters of due diligence obligations remain objective.

Mr President, members of the Tribunal, as I mentioned in my discussion of the parameters that determine the stringency of the due diligence obligations incumbent on a given State in a given situation, it is generally accepted that State’s capacities are a key factor. This consideration is particularly relevant to the respective obligations of developed and developing countries,\textsuperscript{67} which may have a relatively greater or lesser capacity to combat marine pollution and protect the marine environment. It is well established that “the degree of care expected of a State with a well-developed economy and human and material resources … is different from States which are not so well placed.”\textsuperscript{68}

Furthermore, the standard of due diligence must be appropriate and proportional to the degree of risk of transboundary harm that activities pose,\textsuperscript{69} and so it is both logical and just that industrialized and developed States should bear more demanding obligations with respect to the prevention of harm to the marine environment from greenhouse gas emissions.\textsuperscript{70} As detailed in COSIS’s written statement, industrialized and developed States play an outsized role in generating greenhouse gas emissions and associated damage to the marine environment.\textsuperscript{71} A related idea has found expression in the principle of common but differentiated responsibilities,\textsuperscript{72} which similarly recognizes that a State’s individual circumstances may affect what can reasonably be expected of it.

\textsuperscript{64} See Belize Written Statement, ¶ 70.
\textsuperscript{65} See France Written Statement, ¶ 107.
\textsuperscript{66} See e.g., Australia Written Statement, ¶ 48; Canada Written Statement, ¶ 58; Chile Written Statement, ¶ 96; Indonesia Written Statement, ¶ 68; European Union Written Statement, ¶ 24; United Kingdom Written Statement, ¶ 69.
\textsuperscript{67} See European Union Written Statement, ¶ 73; France Written Statement, ¶ 113; International Union for Conservation of Nature Written Statement, ¶¶ 190, 191, 194; Singapore Written Statement, ¶ 58.
\textsuperscript{68} ILC, Commentaries on the Articles on the Prevention of Transboundary Harm from Hazardous Activities, UN Doc. A/56/10 (2001), articles 3, ¶ 17.
\textsuperscript{69} ILC, Commentaries on the Articles on the Prevention of Transboundary Harm from Hazardous Activities, UN Doc. A/56/10 (2001), articles 3, ¶ 11.
\textsuperscript{70} See COSIS Written Statement, ¶ 301.
\textsuperscript{71} Id.
\textsuperscript{72} See UN Conference on Environment and Development, Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26 (Vol. I) (Annex I) (“Rio Declaration”), Principle 7; see also
To repeat, the contextual nature of the due diligence standard does not render it subjective. States’ particular circumstances are individual, but nonetheless objective, factors. And although States do retain a certain margin of discretion as to the precise measures to be adopted, what measures to take “is not … purely a question for the subjective judgment of the party.” Article 193 of UNCLOS underscores the bounded nature of national discretion by stipulating that States’ sovereign rights are to be exercised “in accordance with their duty to protect and preserve the marine environment.”

In sum, the objective parameters of due diligence, combined with the high probability of disastrous harm occasioned by climate change, limit the margin of national discretion under UNCLOS. It stands to reason that measures must be adopted by States that can actually “obtain this result” of averting calamity, determined on an objective basis and allowing for States’ particular national circumstances.

And so, notwithstanding the relevance of national circumstances, the required degree of care is proportional to the degree of hazard. For States Parties to UNCLOS, this central point keeps the standard of due diligence tightly connected to what is objectively required to protect and preserve the marine environment and to ensure the prevention of damage from climate change. As the Study Group of the International Law Association observed in its report on due diligence in international law, “discretion in the choice of means can be limited” because “a specific type or measure is indispensable to avoid harm.”

Further, the fact that “the risks of harm to the marine environment resulting from climate change are dependent on global concentrations of greenhouse gas emissions in the atmosphere” does not mean, as has been suggested to the Tribunal, that “it is not possible to determine the standard of conduct, or the ‘necessary’ measures, required of an individual State in isolation from the collective measures [that are] required.” As the ICJ observed in the Bosnian Genocide case, where action by more than one State is required to prevent a certain outcome, each individual State is nonetheless obligated to “take all measures … which were within its power.”

Cooperation is essential in the context of marine environmental protection, as this Tribunal has reiterated on a number of occasions. But cooperation does not absolve States, much less States with a well-developed economy and human and material resources, of their treaty obligations.

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73 See European Union Written Statement, ¶ 40; see also COSIS Written Statement, ¶ 282.
74 Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v United States), Judgment 1986 ICJ Rep 392, ¶ 282 (citations and internal quotation marks omitted; emphasis added).
76 See also COSIS Written Statement, ¶¶ 284, 289.
77 Area Advisory Opinion, ¶ 110.
80 New Zealand Written Statement, ¶ 70 (addition mine for flow).
81 Bosnian Genocide, ¶ 430.
resources, from their individual obligations to adopt rules and measures that are capable of protecting the marine environment from harm due to greenhouse gas emissions and the effects of climate change. Whereas it may be incumbent on States to coordinate their efforts, each State remains subject to its individual obligations under Part XII.

That assessment applies even more so when a cooperative arrangement is premised upon national discretion regarding greenhouse gas emission reductions. In fact, it is precisely the universally agreed parameters of general international law and UNCLOS that I have outlined that underscore that individual States do not have unbounded discretion to determine what measures are appropriate. As Ms Amirfar will explain in her speech, the current scientific consensus around the 1.5°C temperature increase threshold provides an objective basis for the obligations that are incumbent upon States under Part XII.

Mr President, members of the Tribunal, allow me to sum up.

The conduct required of States Parties to UNCLOS under Part XII is informed, among other things, by due diligence obligations, as this Tribunal has confirmed with respect to articles 192 and 194(2).

The focus on conduct and due diligence obligations does not mean that States’ obligations in relation to climate change under Part XII of UNCLOS are unspecified or discretionary. To the contrary, as Professor Thouvenin is about to detail for article 194, the clear text of the attendant obligations is quite specific and stringent as to what conduct is required in the context of climate change.

Distinguished members of the Tribunal, because the requirements of due diligence are both contextual and objective, they are especially well suited to a complex challenge like climate change. Quite appropriately, indeed, crucially, the greater the threat, scientific understanding of its severity and urgency, and capacity to address it, the greater the demands on States.

Building on its jurisprudence on Part XII of UNCLOS, this Tribunal has a historic opportunity to specify further what due diligence requires of States Parties in the face of the high probability of catastrophe that we face.

Mr President, honourable members of the Tribunal, this concludes my presentation on behalf of COSIS. I thank you for your kind attention. And may I ask that you please invite Professor Thouvenin to the podium.

THE PRESIDENT: Thank you, Ms Brunnée. I now give the floor to Mr Thouvenin to make his statements, of course. You have the floor, sir.

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83 South China Sea Award, ¶¶ 941, 959; International Law Association, Study Group on Due Diligence in International Law, Second Report (2016), pp. 8-10.
84 See SRFC Advisory Opinion, ¶¶ 125, 128-132; Area Advisory Opinion, ¶¶ 116, 117.
85 See COSIS Written Statement, ¶¶ 177, 222.
MR THOUVENIN: (Interpretation from French) Thank you very much, Mr President. Mr President, members of the Tribunal, it’s a tremendous honour for me to address your Tribunal today, and I would very much like to thank the Commission for Small Island States, represented here, for having entrusted me with the task of setting out certain of its arguments. I shall do so, cognizant of the responsibility that we have to bear in this situation.

My task, like yours, is to determine the obligations of States Parties to deal with the issue of pollution of the marine environment – this same environment that has enabled life on our planet and is truly necessary for the survival of this magnificent group we call humankind.

You have just heard Professor Brunnée explain what is meant by the “due diligence” that is generally expected of States in meeting their obligations under Part XII of the Convention.

But article 194 of the Convention, which is at the very heart of Part XII of the Convention, goes much further. Its text is clear if read in good faith. It places direct and immediate duties on States, which might be deemed severe, if I use the same adjective that was advisedly used by France. It now lies with the Tribunal to determine to what extent they pertain to greenhouse gas emissions which, as is generally admitted, cause pollution of the marine environment.

As the Tribunal is aware, article 194 is made up of five paragraphs. I shall focus on the first three. In doing so, I shall demonstrate, first of all, that because science teaches us that GHG emissions into the atmosphere leads to pollution of the marine environment, article 194, paragraph 1, obliges States to develop and adopt all measures that are necessary, objectively – and when I say “necessary”, it’s in the meaning of indispensable – to reduce and control greenhouse gas emissions and their massive presence in the atmosphere, with a view to ending that pollution. The weight of that obligation varies according to the respective capabilities of States, which are to be assessed objectively in the light of the level of development and the resources of each of the States.

Secondly, under article 194, paragraph 2, each of the States Parties has undertaken to take all measures objectively necessary, within the meaning of “indispensable”, so that greenhouse gas emissions under their jurisdiction or control do not cause significant damage by pollution to other States, including but not restricted to their environment, and also to take all necessary measures, in other words indispensable measures, so that these emissions do not pollute the high seas beyond their exclusive economic zones.

And lastly, as far as my presentation is concerned, allow me to recall that under article 194, paragraph 3, States Parties have undertaken to ensure that “all measures necessary”, as referred to in the previous paragraphs of the same article, deal with all sources of pollution of the marine environment, inter alia, in order to prevent, reduce and control pollution of the marine environment, and each State Party has undertaken to take measures to prevent, reduce and control pollution from land-based sources, vessels and pollution from or through the atmosphere.
Mr President, I’d now like to show on the screen the text of paragraph 194(1):

“States shall take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonise their policies in this connection.”

This is a text that is extremely clear, but I shall go through it, if I may, in detail.

One can immediately see that the first paragraph is made up of two units which are logically linked. The first refers to a clear and precise obligation:

“States shall take, individually or jointly ... all measures ... necessary to prevent, reduce and control pollution of the marine environment from any source.”

The second unit sets out the means that the States are bound to use in order to meet their obligation:

“... using for this purpose the best practicable means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonise their policies in this connection.”

There are four key elements to be found here. They can be summarized as follows:

States, first of all, have a duty to “take individually or jointly”;

secondly, “all measures”;

thirdly, “necessary to prevent, reduce and control pollution of the marine environment”;

and fourthly, corresponding to the “best practicable means at their disposal and in accordance with their capabilities.”

If I may, Mr President, I shall now go through them in turn.

First of all, States shall “take” measures. It’s an imperative, an obligation; it is not a suggestion nor a recommendation or a wish. The formulation is not “soft”. It imposes on States that they adopt a certain clearly defined conduct.

The obligation is to take measures “individually or jointly as appropriate”, according to the text. It’s a very broad formulation. “As appropriate” means, for instance, that if the “joint” measures that would a priori seem to be the most effective cannot be taken, the would be “appropriate” to take the necessary measures individually. As concerns pollution of the marine environment by greenhouse gas emissions, States cannot release themselves from their individual obligations to prevent, reduce and control it on the pretext that it would be more appropriate to embark upon a joint action or on the grounds that other States are not taking all of the necessary measures.
The Supreme Court of the Netherlands has quite rightly asserted this point in affirming *Urgenda* that, and I quote,

*(In English)* “each reduction of greenhouse gas emissions has a positive effect on combating dangerous climate change as every reduction means that more room remains in the carbon budget. The defence that a duty to reduce greenhouse gas emissions on the part of the individual States does not help because other countries will continue their emissions cannot be accepted for this reason either: no reduction is negligible.”

*(Continued in French)* Similarly, the Constitutional Court of Germany recently ruled that, and I quote,

*(In English)* “the obligation to take national climate action cannot be invalidated by arguing that such action would be incapable of stopping climate change. ...The state may not evade its responsibility here by pointing to greenhouse gas emissions in other states.”

*(Continued in French)* Article 194, paragraph 1, certainly does not disagree with this.

Secondly, States shall take “all measures”. The important term here is the word “all”. The term “all” has been clarified in the case concerning *Application of the International Convention on the Suppression of the Financing of Terrorism and the International Convention for Elimination of Racial Discrimination, Ukraine v. Russia*. According to the International Court of Justice, in this case the ordinary meaning of this term refers “comprehensively” to what it designates, and there is no reason to limit its scope when the Convention in which it is used does not contain, and I quote, an “exclusion of any category”.

Such as they are used in paragraph 1 of article 194, the terms “all measures necessary” mean, therefore, that States have not only have the duty to take certain measures, a certain number of measures, “some” measures, or “the” measures they deem pertinent. It is a comminatory text: States must take “all” the measures “necessary”, without excluding any, provided that, materially or formally, they are “necessary”. In other words, no necessary measure can be excluded for whatever reason.

What is more, all forms and all types of measures are referred to: adoption of laws, regulations, decisions of course, but also any other material, financial, scientific or other action, provided that it is necessary in order to prevent, reduce and control pollution of the marine environment. What is more, article 207 provides expressly for the adoption of “laws and regulations to prevent, reduce and control pollution of the

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87 BVerfG, Order of the First Senate, 24 March 2021, 1 BvR 2656/18, ¶¶ 202-203: https://www.bundesverfassungsgericht.de/ers20210324_1bvr265618en.html.


89 *Id.*
marine environment from land-based sources”, and “other measures as may be necessary.” “Other measures as may be necessary”; that includes, obviously, once again, financial measures, and in order to guarantee the application of these measures, there is article 213, which provides, and I quote:

“States shall enforce their laws and regulations adopted in accordance with article 207.” Article 212 also imposes laws, regulations and other measures necessary for pollution from or through the atmosphere, whereas article 222 imposes a duty on States Parties to enforce the laws and regulations they have adopted in accordance with article 212.

Mr President, members of the Tribunal, this brings me now to the question of what is meant by “prevent, reduce and control pollution of the marine environment.”

It has to be acknowledged that the formulation is, at first sight, somewhat baffling. Preventing pollution of the marine environment means preventing it, stopping it from happening. I note, for that matter, that the award in the Iron Rhine referred to “the duty to prevent”; that was as mentioned in the English version. It was translated into French as “obligation d’empêcher”. What is more, on the other hand, reducing and controlling pollution means limiting it, not totally preventing it. Article 194, paragraph 1, provides that these actions should not be done alternatively but simultaneously, as indicated by the conjunction – the word “and” – which is used in preference to the term “or”, which is not used here. So the formulation is very clearly different from that of the Iron Rhine, where mention is made of, and I quote, a “duty to prevent, or at least mitigate” pollution.

Article 194, paragraph 1, posits, therefore, a compound duty: that of preventing, reducing and controlling pollution of the marine environment, which is perfectly adapted to that pollution. While it is clear that pollution, in any circumstances, cannot be immediately or totally prevented, it is equally clear that any instance of pollution of the marine environment can be immediately reduced and controlled with a view ultimately to preventing it. That is the duty set out by paragraph 1 of article 194, and it is different from a classic or standard obligation to prevent pollution because it specifies, in its very wording, the process by which effective prevention is to be brought about.

In the specific context of this case, we can see that total, absolute prevention of pollution of the marine environment by greenhouse gas emissions can only be a medium-term objective; thus, the immediate obligation that has to be followed in order to reach that objective is to reduce and control such pollution as part of a process which serves to prevent it as quickly as possible. So, it is not just a question of “reducing and controlling pollution” with no concern for its “prevention”, but reducing and controlling it in the context of a continuous action, with the aim of gradually preventing it. The Tribunal will perhaps at this stage imagine that we are seeing a sort of mirror effect with the same gradual reduction – albeit in a tighter time

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90 Iron Rhine Arbitration (Belgium/Netherlands), PCA Case No. 2003-02, Award, 24 May 2005, ¶ 59.
91 Id. See also Indus Waters Kishenganga Arbitration (Pakistan v. India), PCA Case No. 2011-01, Final Award, 20 December 2013, ¶ 112.
frame due to climate urgency – as that of greenhouse gas emissions adopted under
the Paris Agreement.92

But, Mr President, allow me now to turn to the context of this obligation. As I’ve
already said, it’s not just an obligation of prevention without any further detail; it is an
obligation to “take all measures necessary” in order to “prevent, reduce and control
pollution of the marine environment”.

The International Court of Justice has had the opportunity to clarify that the
obligation to take, and I quote, “all necessary measures”, end of quote, for a result to
be reached requires direct and immediate action when such a result is not, and
I quote, “materially impossible … or [where] it would [not] involve a burden out of all
proportion to the benefit deriving from it.”93

In the case of the Jurisdictional Immunities of the State, Germany asked the Court to
adjudge and declare that Italy had an obligation, and I quote, “by means of its own
choosing, [to] take any and all steps” to ensure that all decisions of its courts
infringing Germany’s sovereign immunity become unenforceable.94 The Court
granted this request and ruled that, given that it was not materially impossible nor
would involve a burden out of all proportion to the benefit deriving from it, Italy was
under an obligation to achieve this result by enacting appropriate legislation or by
resorting to other “methods of its choosing” having the same effect.95 Obviously we
will see that when the Court indicated that Italy could “choose a method” or use a
“method of its choosing” to meet its duty, it did not allow for any discretion as to the
content of the obligation to be respected, which obviously had to remain the same.96

You will also note that, in the case of interpretation of the Avena judgment, the
International Court of Justice adopted a provisional measure ordering that the United
States take all necessary measures to ensure that persons would not be executed
before certain legal remedies had been exhausted.97 Subsequently, it judged that
there had been infringement of that duty because one of the individuals had been
executed without the procedures indicated by the Court being followed.98

Thus, Mr President, members of the Tribunal, we can probably consider that the duty
under article 194, paragraph 1, is a direct and immediate duty, which is to reach a
precise result that is neither materially impossible nor out of proportion; in other

92 See Article 4 of the Paris Agreement.
93 Jurisdictional Immunities of the State (Germany v. Italy: Greece intervening), Judgment, 3 February
2012, ¶ 137.
94 Jurisdictional Immunities of the State (Germany v. Italy: Greece intervening), Judgment, 3 February
2012, ¶¶ 15-17.
95 Jurisdictional Immunities of the State (Germany v. Italy: Greece intervening), Judgment, 3 February
2012, ¶ 137.
96 Jurisdictional Immunities of the State (Germany v. Italy: Greece intervening), Judgment, 3 February
2012, ¶ 139, point (4).
97 Request for Interpretation of the Judgment of 31 March 2004 in the Case concerning Avena and
Other Mexican Nationals (Mexico v. United States of America) (Mexico v. United States of America)
98 Request for Interpretation of the Judgment of 31 March 2004 in the Case concerning Avena and
Other Mexican Nationals (Mexico v. United States of America) (Mexico v. United States of America),
words, taking – i.e., developing and implementing – all measures necessary to  
prevent, reduce and control pollution of the marine environment.

This being said, Mr President, is it correct to say, as some would have it – some of  
the States and other parties participating in these proceedings – that determining all  
measures necessary to prevent, reduce and control pollution of the marine  
environment is left to the discretion of States?99 That is not the case and there are at  
least two reasons for this.

First of all, the term “necessary” means “indispensable”. This is what has been noted  
by the World Trade Organization’s appellate body for which, and I quote:

“The word ‘necessary’ normally denotes something ‘that cannot be dispensed with or  
done without, requisite, essential, needful’.”100

Of course, what is “indispensable” cannot be decided according to discretion; it has  
to be done objectively.

And then, because the International Court of Justice has already interpreted the  
concept of “necessary” by ruling that, and I quote:

“whether a given measure is ‘necessary’ is ‘not purely a question for the subjective  
judgment of the party’ […], and may thus be assessed by the Court.”101

It is, thus, an objective evaluation that determines what all the measures necessary  
to be adopted by States are in order to prevent, reduce and control pollution of the  
marine environment. Ms Amirfar will develop this point shortly. What should be noted  
at this stage is that when measures are objectively necessary, they must be taken.

Let us now move to the fourth part of the text, which requires States to use the “best  
practicable means at their disposal in accordance with their capabilities”. The means  
to be used refer to the material content of the measures to be adopted by States in  
order to fulfill their obligations. Moreover, the term “best practicable means” generally  
refers to techniques, technologies or scientific or financial means.102

In this instance, there’s no need to be a great scholar to understand that one of the  
“best” practicable means to prevent, reduce and control pollution of the marine  
environment caused by greenhouse gas emissions is to reduce them as quickly as  
possible, with a view to preventing them as soon as possible. I note that it is also

99 See, in particular, the written statement of the European Union, ¶¶ 40, 66 and 76. See also the  
written statement of Singapore, ¶ 32. See also, contra, the written statement of Portugal, ¶¶ 78-79,  
the written statement of the Democratic Republic of the Congo, ¶¶ 252-253 and the written statement  
submitted by Opportunity Green, ¶ 55, point b. and ¶ 68.
100 WT/DS161/AB/R – WT/DS169/AB/R, 11 December 2000, Korea – Measure Affecting Imports of  
Fresh, Chilled and Frozen Beef, Appellate Body report, ¶ 160.
101 Oil Platforms (Islamic Republic of Iran v. United States of America), Judgment - Merits, 6 November  
2003, ¶ 43; Certain Iranian Assets (Islamic Republic of Iran v. United States of America), Judgment,  
30 March 2023, ¶ 106.
102 See, for example, Art. 2, ¶ 11, of Council Directive 96/61/CE of 24 September 1996 concerning  
integrated pollution prevention and control.
currently the “best practicable means” in the view of all, to reduce the progression of
global warming.

As to the reference to the fact that States must act “in accordance with their
capabilities”, this Tribunal has already interpreted this in the Area Advisory Opinion
in relation to the precautionary principles set out by the first sentence of principle 15
of the Rio Declaration, according to the which, you will recall:

“In order to protect the environment, the precautionary approach shall be widely
applied by States according to their capabilities.”

Your Tribunal was of the opinion, I quote you here, that this “introduces the
possibility of differences in application of the precautionary approach in light of the
different capabilities of each State.”

Finally, your opinion made clear that these differences can be objectively assessed,
*inter alia*, according to each State’s level of development and resources.

So, there are nuances in the obligation to adopt “all measures necessary to prevent,
reduce and control pollution”. Depending on their capabilities, some States have to
make greater efforts than others to prevent, reduce and control pollution of the
marine environment. This mirrors a concept you can find in the Paris Agreement
under, *inter alia*, article 2, paragraph 2, which recognizes the principle of common but
differentiated responsibilities and the respective capabilities of each State.

Mr President, distinguished members of the Tribunal, to conclude on this particular
point, article 194, paragraph 1, obliges States to adopt all measures objectively
necessary – meaning indispensable – to reduce and control greenhouse gas
emissions under their jurisdiction, with a view to putting a swift end to their discharge
into the atmosphere, which leads – as the science tells us – to pollution of the marine
environment. This obligation varies in stringency according to States’ capabilities –
capabilities which are to be objectively assessed, *inter alia*, in the light of each
State’s level of development and available resources.

Mr President, now I turn towards paragraph 2 of article 194, which rewrites, as a
treaty obligation, an obligation which is already well and solidly anchored in general
international law, as we recalled in our written statement which you will have read.

You can see the text here on screen:

“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.”

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103 Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area, Advisory opinion, 1 February 2011, ITLOS Reports 2011, ¶ 129.
104 Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area, Advisory opinion, 1 February 2011, ITLOS Reports 2011, ¶¶ 151-163.
105 See COSIS Written Statement, ¶¶ 206-207.
In its ordinary meaning and taken as a whole, this provision contains the obligation on States to adopt all measures necessary to prevent everything conducted under their jurisdiction or control from affecting third parties or the high seas beyond the EEZ.

I will address this in three stages: first, by briefly mapping out the nature of the obligation; then, by getting into the details of the obligation to not cause damage to third parties; and, finally, by looking at the meaning and scope of the obligation to not pollute the high seas.

Mr President, as my colleague Professor Brunnée described, article 194, paragraph 2, has been considered by your Tribunal as containing an obligation of due diligence. The reasoning leading to this conclusion is founded, above all, on the verb “to ensure”, which appears in the English version of article 194, paragraph 2, and it is a verb that appears once again in article 139, paragraph 1, of the Convention.

But the wording of these two articles is actually rather different. Article 139, paragraph 1, provides that “States Parties shall have the responsibility to ensure” that the activities over which they have jurisdiction are conducted consistently with the requirements of the Convention. It is this “responsibility to ensure” which is key here. By contrast, article 194, paragraph 2, doesn’t use have that wording but instead:

“States shall take all measures necessary to ensure” that activities under their jurisdiction do not cause damage.

This difference in wording is also found in the French version: article 139, paragraph 1, reads as follows, and I’ll read it in French: “Il incombe aux États Parties de veiller à”, whereas the text of article 194, paragraph 2, reads “Les États prennent toutes les mesures nécessaires pour”. Same distinction, same difference.

Thus, as Professor Brunnée has just set out, due diligence is included in article 194, paragraph 2. The wording of this provision is even more rigorous than what flows from due diligence insofar as this is possible. Why? Well, it requires States to “take all measures necessary” to ensure that those sort of events which must be avoided do not occur. To quote the terms of your Tribunal in your Area Opinion, paragraph 122, this is a “direct obligation.”

This obligation is, on the one hand, to not cause damage by pollution to other States and their environment.

“Pollution”, referred to here, is broader in scope than mere pollution of the marine environment as defined in article 114 of the Convention. Why? Because the term “marine environment” is omitted, and when article 194 means to refer to “pollution of the marine environment”, it says so expressly. Here, the text speaks to “pollution caused to States and to their environment”, without further specification. So you

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106 Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area, Advisory opinion, 1 February 2011, ITLOS Reports 2011, ¶ 121.
could think that “pollution”, within the meaning of article 194, paragraph 2, is defined more broadly than “pollution of the marine environment”, all the while, of course, remaining within the scope of the Convention. The ILC considered that beach pollution falls within that scope. According to the ILC, to quote one of its reports 2001:

“... a case of pollution of the high seas in breach of article 194 of the [UN] Convention on the Law of the Sea may particularly impact on one or several States whose beaches may be polluted by toxic residues or whose coastal fisheries may be closed. In that case, independently of any general interest of the States Parties to the Convention in the preservation of the marine environment, those coastal States Parties should be considered as injured by the breach.”107

So the pollution in issue here can include pollution generated by shipping waste (Marpol Convention, Annex V) or atmospheric pollution by shipping (also Marpol Convention, Annex VI). Those are only a few examples.

Looking now at harm. Harm isn’t characterized by the text; however, in most conventions on environmental protection, it is understood to be harm of a certain significance.108 The ICJ, in the Pulp Mills case, stated that, under general international law, I quote the ICJ:

“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 any area under its jurisdiction, causing significant damage to the environment of another State.”109

As for the International Law Commission, in its draft articles on the prevention of transboundary harm from hazardous activities, it included the concept of “significant transboundary harm”, specifying that, and I will quote the ILC here:

“It is to be understood that ‘significant’ is something more than ‘detectable’ but need not be at the level of ‘serious’ or ‘substantial’. The harm must lead to a real detrimental effect on matters such as, for example, human health, industry, property, environment or agriculture in other States. Such detrimental effects must be susceptible of being measured by factual and objective standards.”110

Mr President, distinguished members of the Tribunal, the Commission of Small Island States is in agreement with other States having submitted written statements in the framework of the instant proceedings and considers that this definition of “harm” corresponds to that which should be applied in the interpretation of article 194, paragraph 2.

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108 See the instruments mentioned in the COSIS Written Statement, ¶ 231.
Activities falling under the jurisdiction or control of States Parties must not “cause
damage by pollution to other States and their environment”. This means that it is not
only harm to the environment of other States, but also any sort of pollutant damage
causèd to States by other States which must be prevented. For example, to the
degree that sea-level rise causes catastrophic harm which isn’t uniquely, solely
environmental in nature, it is the totality of this prejudice that States have the
obligation to prevent by adopting “all measures necessary”.

Mr President, distinguished members of the Tribunal, article 194, paragraph 2, seeks
not only to protect third States from all significant harm occasioned by the pollution of
others, as I’ve just pointed out. It also requires States to take all measures necessary
so that pollution resulting from incidents or activities under their jurisdiction or control
does not spread to the high seas beyond the EEZ. Now, I’ll leave “incidents” to one
side because I don’t think it’s terribly relevant here, and I shall focus on “activities”.

As it is drafted, this provision says nothing about States which might allow activities
on their territory to continue which generate marine pollution localized in areas over
which they exercise sovereign rights. The provision says nothing about this. But if
States do engage in this type of activity, this provision – and that’s its object –
requires them to take all measures necessary so that this pollution does not spread
beyond their areas – meaning, of course, it should not spread to the high seas or
beyond the EEZ.

A typical case in issue here would be plastic pollution. You can see that all measures
necessary to stop this plastic pollution aren’t being taken. Plastic pollution starts
onshore and then flows out to sea, which is tragic. A new treaty is being discussed to
confront this plague, but it is plain that UNCLOS already has a provision which is
extremely clear and which allows States’ obligations in this respect to be determined.

The same applies to pollution caused by global warming due to atmospheric
greenhouse gas emissions and which spreads over all the oceans. We can see from
article 194, paragraph 2, that States should take “all measures necessary”, meaning
objectively indispensable, to prevent this from occurring.

Mr President, as I have already underscored, paragraph 1 of article 194 obliges
States to take all measures necessary – meaning “indispensable” – to prevent,
reduce and control pollution of the marine environment, and paragraph 3 of this
article confirms that no source of pollution escapes this obligation.

The written statements received within the framework of the instant proceedings
suggest that the sources of pollution, the most relevant in this case, are those which
are land-based, namely “pollution” from “point and diffuse sources on land from
which substances or energy reach the maritime area by water, through the air, or
directly from the coast.”¹¹¹ Here I am citing the definition of land-based pollution from
the Convention for the Protection of the Marine Environment of the North-East
Atlantic, the OSPAR Convention, paragraph 1(e). Pollution, more broadly from and
through the atmosphere is also relevant.

¹¹¹ Article 1(e) of the Convention for the Protection of the Marine Environment of the North-East
Atlantic (OSPAR Convention).
These sources are specifically targeted by article 194, paragraph 3, subparagraph (a). Pollution from vessels, referred to in subparagraph (b), also cannot be neglected, but I don’t think there is any sort of disagreement about that.

To restrict myself to land-based pollution by vessels and from or through the atmosphere, articles 207, 211 and 212 of the Convention respectively set out a series of obligations which directly concern them, such as States’ obligations to adopt laws and regulations taking account of internationally agreed rules, standards, practices and procedures, to take all other measures necessary, and to harmonize their policies at the regional level, in order to prevent, reduce and control pollution of the marine environment. States also have the obligation, when acting through competent international organizations, or diplomatic conferences, to adopt rules and standards, practices and procedures seeking the same objective.

As a complement, and in order to ensure practical effect is given to the obligations of Part XII of the Convention, articles 213 and 222 oblige States to implement the rules and regulations adopted under articles 207 and 212.

Mr President, distinguished members of the Tribunal, this brings me to the end of my presentation. I do hope I have demonstrated that the three conclusions which I set out at the introduction of my presentation have been clearly demonstrated and confirmed. I would like to thank you now for your very kind attention and ask that you give the floor to Ms Catherine Amirfar.

THE PRESIDENT: Thank you, Mr Thouvenin. I think that at this stage the Tribunal will withdraw for a break of 30 minutes. We will continue this hearing at 11.55. Thank you.

(Short break)

THE PRESIDENT: I now give the floor to Ms Amirfar to make her statement. You have the floor, Madam.

MS AMIRFAR: Mr President, honourable members of the Tribunal, good afternoon. It is a privilege to appear before you and on behalf of the Commission of Small Island States on this important occasion.

My task today is to present the Commission’s position on the first question before the Tribunal and in particular, to identify the specific obligations that States Parties have under the Law of the Sea Convention in respect of pollution of the marine environment by greenhouse gas emissions.

We submit that the answer to the first question flows from the clear text of the Convention, as well as from the unequivocal record of scientific evidence. The focus of my intervention today is the role of climate science in informing the content of States Parties’ obligations under Part XII with respect to greenhouse gas emissions.

The role of science under the Convention is multifaceted. As relevant to the UNCLOS framework, the best available science demonstrates that greenhouse gases constitute pollution of the marine environment under article 1(1)(4). The best
available science demonstrates the actual and likely deleterious effects from greenhouse gas emissions under that definition and quantifies the risk and harms of such effects. The best available science provides thresholds and targets that must be reached to avoid such effects on the marine environment and can offer a menu of possible actions to States Parties to achieve that end. And while ultimately the science cannot select among these actions, this is where the legal framework of the Law of the Sea Convention steps in: it makes clear the requirements placed on States Parties as a matter of specific legal obligations, rather than as an exercise of political discretion.

Members of the Tribunal, to elucidate these points, I will proceed in three parts. First, I will address the obligations under article 194 as informed by the science. Second, I will explain how the science informs other obligations under Part XII of the Convention. And third, I will conclude with the Commission's position on the States Parties' specific obligations under the Convention in relation to the first question.

In short, the international consensus around the best available science demonstrates that avoiding the worst consequences of climate change on the marine environment requires limiting average global temperature rise to no more than 1.5°C above pre-industrial levels. The Law of the Sea Convention thus requires States Parties to take all measures necessary to do so, and to do so urgently.

Turning to my first point, I start with a basic premise: that the best available science stands as the objective and determinative metric that delineates the specific obligations of article 194. Article 194(1) requires, in strong terms, States Parties to "take . . . all measures . . . necessary" to prevent, reduce, and control marine pollution in the form of greenhouse gas emissions, "using the best practical means at their disposal and in accordance with their capabilities." And as Professor Thouvenin just went through, what is "necessary" by virtue of the clear text is what is indispensable, and what is indispensable must be determined objectively. That objective basis is supplied by the best available science.

Article 194(2) requires – also in strong terms – that States Parties "shall take all measures necessary" to "ensure" that activities under their jurisdiction or control do not cause damage by greenhouse gases to other States and their environment. Professor Brunnée explained how the due diligence obligations contained in articles 192 and 194(2) require that States Parties exercise diligence depending on the level of risk and foreseeable harm, as measured on an objective basis. And as Professor Thouvenin explained, the wording of article 194(2) is even more demanding. Here again, it is the best available science that informs the objective measures under article 194(2) necessary to "ensure" that activities do not cause transboundary damage. The measures considered sufficiently diligent, in the words of the Seabed Disputes Chamber's Area Advisory Opinion, may change over time in line with "new scientific or technological knowledge".112

You heard yesterday the presentations of Dr Cooley and Dr Maharaj describing in plain language the devastating impacts of anthropogenic greenhouse gas emissions on the marine environment. It bears reminding that when it comes to climate change

112 Area Advisory Opinion, ¶ 117.
and the ocean, we are not dealing with a high risk of small harm; or a low risk of grave harm. We are dealing with a high risk of very significant harm as a matter of “high confidence”. And these impacts are current and only intensifying. Importantly, as scientific knowledge develops, those developments inform the obligations under the Convention to do what is “necessary” to prevent, reduce and control pollution under article 194(1) and to “ensure” activities do not cause damage by pollution under article 194(2). This is an aspect of the central and rigorous role played by developments in scientific and technical information in the interpretation of obligations under the Convention more generally, as demonstrated yesterday by Professor Okowa.

For purposes of my first point, I will start by addressing what the science has to say as to how pollution of the marine environment by greenhouse gas emissions links to global temperature rise, as well as the time scale associated with such pollution. I will then turn to the international standard based on that science and its implications for the specific obligations of States Parties under the Convention.

Turning to the link between marine pollution and global temperature rise, the international consensus around the best available science is manifest in the work of the Intergovernmental Panel on Climate Change, or the IPCC. The overwhelming majority of States’ written submissions addressing the merits of the questions before the Tribunal relied on the IPCC’s findings, for good reason. Its assessments reflect the consensus of hundreds of the world’s leading scientists. In granting the Nobel Peace Prize to the IPCC, the Nobel committee memorably acknowledged the critical importance of the IPCC’s work to, in the committee’s words, “build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change.”113

The reason for this acknowledgement has as much to do with the IPCC’s process and procedures, as with the rigor of its conclusions. The IPCC reviews thousands of scientific papers each year to distil “what is known about the drivers of climate change, its impacts and future risks, and how adaptation and mitigation can reduce those risks.”114 The IPCC makes the first and final drafts of its assessment reports available to the governments of each Member State to review and comment. The IPCC’s findings are thus the consensus not only of the global scientific community, but also incorporate the views of the 195 participating States.115

Earlier this year, the IPCC concluded its Sixth Assessment Cycle, which began in 2018 and was concluded this year. In coming to its conclusions, the IPCC speaks in terms of “very high”, “high”, “medium”, “low”, or “very low” confidence. As you heard from Drs Cooley and Maharaj yesterday, careful attention to evaluating uncertainty in the IPCC’s stated scientific conclusions underscores that its reports reflect the highest standards of scientific rigor.

When it comes to the negative impact of greenhouse gas emissions as marine pollution, the underlying problem is continuous, not binary. The IPCC concluded with

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114 About the IPCC, IPCC, [https://www.ipcc.ch/about/](https://www.ipcc.ch/about/).
*high confidence* that “[e]very increment of global warming will intensify multiple and
concurrent hazards.”\(^{116}\) With respect to the ocean and marine cryosphere in
particular, the IPCC has “high confidence” that limiting global warming to 1.5 degrees
as opposed to 2 degrees will: reduce increases in ocean temperature as well as
associated . . . decreases in ocean oxygen levels. . . . Consequently, limiting global
warming to 1.5°C is projected to reduce risks to marine biodiversity, fisheries, and
ecosystems, and their functions and services to humans, as illustrated by recent
changes to Arctic sea ice and warm-water coral reef ecosystems (high
confidence).\(^{117}\)

The IPCC also concluded with “high confidence” that the risks to small islands and
low-lying coastal areas associated with sea-level rise – including saltwater intrusion,
flooding, and damage to infrastructure – “are higher at 2°C compared to 1.5°C”.\(^{118}\)

With respect to ocean acidification, the IPCC has “high confidence” that the level of
ocean acidification due to increasing CO\(_2\) concentrations associated with global
warming of 1.5°C is projected to amplify the adverse effects of warming, and even
further at 2°C, impacting the growth, development, calcification, survival, and thus
abundance of a broad range of species, for example, from algae to fish.\(^{119}\)

This chart from the IPCC’s Sixth Assessment Report shows the consequences
associated with five areas that the IPCC has identified as “Reasons for Concern”,
which include the gamut of impacts and risks to ocean ecosystems, including as
Dr Cooley detailed yesterday, widespread ecosystem death and biodiversity loss.
Generally speaking, as you can see here, for each Reason for Concern, temperature
rise above 1.5°C represents a dramatic increase in the risk, moving from moderate
to high. For example, with regard to some “unique and threatened systems” such as
coral reefs, the IPCC identified, and I quote, “increasing numbers of systems at
potential risk of severe consequences at global warming of 1.5°C above pre-
industrial levels.”\(^{120}\)

In fact, what we know is that in a world above 1.5°C, 70 to 90 per cent of tropical
corals would disappear as a result of mass bleaching and mortality.\(^{121}\) This will have
devastating effects on marine biodiversity, given that these coral reefs provide
habitats for over one million species.\(^{122}\) Framework organisms – that is, those that
provide habitats for a large number of marine species – such as kelp forests,
seagrass meadows, corals and mangroves will be at high risk of dying off due to
increasingly frequent and severe marine heatwaves.\(^{123}\) There would likely be ice free
summers in the Arctic by 2050, risking habitat loss for many species including seals.

\(^{118}\) Id., p. 8.
\(^{120}\) IPCC, *Chapter 3: Impacts of 1.5°C of Global Warming on Natural and Human Systems*, SPECIAL
\(^{121}\) IPCC, *Chapter 3: Impacts of 1.5°C of Global Warming on Natural and Human Systems*, SPECIAL
REPORT: GLOBAL WARMING OF 1.5°C (2018), pp. 179, 229–230 (Box 3.4).
\(^{122}\) IPCC, *Chapter 3: Impacts of 1.5°C of Global Warming on Natural and Human Systems*, SPECIAL
REPORT: GLOBAL WARMING OF 1.5°C (2018), pp. 229–230 (Box 3.4).
\(^{123}\) Id., pp. 225–226.
whales, polar bears and seabirds. These are but a few examples drawn from the expert evidence of Dr Cooley and Dr Maharaj.

I turn now to the timetable for action to mitigate the effects of climate change on the marine environment. The best available science tells us that we are dangerously close to exceeding the 1.5° limit.

The IPCC has calculated a “remaining carbon” budget, which estimates the total net amount of carbon dioxide that human activities can still release into the atmosphere while keeping global temperatures to a specified limit above pre-industrial levels.

The chart on the screen reflects the IPCC’s assessment of the remaining carbon budget as of 2022. The IPCC found that attaining even a 50 per cent chance of limiting global warming to 1.5°C would require limiting the remaining carbon budget to a cumulative total of 500 billion tonnes of CO2 in the years from 1 January 2020 onward, which you can see in the lower right hand of the chart. Currently, human activities are emitting around 40 billion tonnes of CO2 into the atmosphere in a single year. The IPCC’s conclusions thus show that, without dramatic and urgent reductions in greenhouse gas emissions, the world will soon exceed our estimated remaining carbon budget with devastating consequences. That point is shockingly close: it will be reached within this decade.

The IPCC has shown, and the vast majority of written statements submitted in this case concur, that the only way to do avoid such devastating consequences is by swiftly and sharply decreasing greenhouse gas emissions. The IPCC assesses that, to achieve at least a 50 per cent chance of limiting warming to 1.5°C, States must reduce greenhouse gas emissions, as measured against 2019 levels, by at least 43 per cent by 2030, 60 per cent by 2035, 69 per cent by 2040 and 84 per cent by 2050. And as Dr Cooley explained yesterday, it may be impossible to recover from exceeding the 1.5-degree limit even if the world develops significant carbon-capture technology, which at present does not exist. Indeed, the best available science tells us there is currently no sign that these targeted reductions will be

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125 See generally COSIS Written Statement, Annexes 4, 5.
127 Id.
128 Id.
129 IPCC, Summary for Policymakers, SIXTH ASSESSMENT SYNTHESIS REPORT (2023), pp. 20–21.
130 Id.
131 See, e.g., African Union Written Statement, ¶ 202, 206; Australia Written Submission, ¶¶ 6, 9, 35; Bangladesh Written Submission, ¶¶ 35, 45; Belize Written Statement, ¶¶ 25, 26; Egypt Written Statement, ¶¶ 73-74; European Union Written Submission, ¶ 55; International Union for Conservation of Nature, ¶¶ 36-37; Mauritius Written Submission, ¶ 31; Micronesia Written Submission, ¶¶ 50-51; Mozambique Written Submission, ¶ 3.67; Portugal Written Submission, ¶ 44; Rwanda Written Submission, ¶¶ 108, 150; Sierra Leone Written Submission, ¶ 63; United Kingdom, ¶¶ 69, 89(c) fn 234; United Nations Environment Programme Written Statement, ¶¶ 47, 49(a); see also Paris Agreement, articles 2(1)(a), 4(1).
133 Id., pp. 12, 21–22.
achieved, making the rapid and dramatic action to limit global temperature rise to 1.5°C all the more urgent.

In considering this science, it bears keeping in mind that a notable consequence of the IPCC’s lengthy review process is that its conclusions are based on data that are sometimes several years old. Climate projections have only gotten worse since the findings of the Sixth Assessment Cycle. This fact, combined with the IPCC’s strict criteria for evaluating evidence, means that its findings about the nature or likelihood of climate impacts are often conservative. We have seen this play out, for instance, with respect to the Arctic and Antarctic ice sheets, which have experienced warming and loss at a much higher rate than previously predicted. This is one of the strongest warming trends on Earth, which destroys polar habitats, contributes to sea-level rise, distorts global ocean currents, and reduces the ice albedo effect by reflecting less heat back out of the atmosphere.

As a general matter, then, the IPCC has concluded with high confidence that keeping the average global temperature rise to within 1.5 degrees will reduce the risks of harm associated with even greater negative impact on the ocean and marine cryosphere. This is a critical point: in other words, an average global temperature rise of 1.5°C would not be “ok” with respect to pollution of the marine environment; on the contrary, even that increment of warming will likely give rise to serious deleterious effects to humans, fauna and flora. But the risks and magnitude of global, catastrophic harm grow significantly if the world exceeds a 1.5-degree temperature increase.

Although meeting the 1.5-degree threshold would be no panacea, neither is it arbitrary; rather, it is an evidence-based threshold that represents the international standard based upon the best available science around harm mitigation.

Much has been said in the written statements before the Tribunal on the import and relevance of the climate regime and the Paris Agreement. As Professor Mbengue explained yesterday, the question is not one of conflict or competition, or a hierarchy of obligations. Rather, the global climate regime in general, and the Paris Agreement in particular, evince the global consensus around the scientific understanding of climate change. Article 2(1)(a) of the Paris Agreement sets forth that States Parties should “pursue efforts to limit the temperature increase to 1.5°C”, “recognizing that this would significantly reduce the risks and impacts of climate change.” Article 4(1) recognizes that in order to reach this temperature goal, States Parties should “aim to reach global peaking of greenhouse gas emissions as soon as possible” and “to undertake rapid reductions thereafter in accordance with best available science”. Since the Paris Agreement was adopted, the States Parties to the UNFCCC – which include all States Parties to UNCLOS – have continually...

134 See International Union for Conservation of Nature Written Statement, ¶¶ 81, 158.
135 International Union for Conservation of Nature Written Submission, ¶ 141 (citing International Cryosphere Climate Initiative, State of the Cryosphere 2022: Growing Losses, Global Impacts: We cannot negotiate with the melting point of ice (2022)).
136 Paris Agreement, Art. 2(1)(a) (emphasis added).
137 Paris Agreement, Art. 4(1) (emphasis added).
reaffirmed the critical importance of keeping to within 1.5°C in their annual
Conference of the Parties, including in COP27.\(^{138}\)

The Paris Agreement and decisions of the Conference of the Parties to the UNFCCC
confirm that the 1.5-degree limit reflects an international, science-backed threshold,
and, as such, constitutes an internationally agreed rule, standard and recommended
practice and procedure relevant to the interpretation of States Parties’ obligations
under the Convention. This is in accordance with articles 207(1), which deals with
pollution from land-based sources, article 211(1) for pollution from vessels, and
articles 212(1) and 212(3) for pollution from or through the atmosphere.

Before leaving this point, a word on the obligation for States Parties to the Paris
Agreement to publish nationally determined contributions, or NDCs. A State’s NDC
stands as a statement of intention to achieve the 1.5-degree temperature target,
reflecting each State’s relative greenhouse gas emissions on a forward-looking
basis. Some States, in their written statements before the Tribunal, come close to
suggesting that their obligations under Part XII will be satisfied by publishing
progressively ambitious NDCs.\(^{139}\) But simply publishing an NDC, on its own, cannot
satisfy the obligations under the Convention.\(^{140}\)

Indeed, currently NDCs are falling short. The IPCC graphic shown here depicts the
existing and significant gap between the sum of current NDCs and the 1.5-degree
temperature limit. The right-hand chart shows that to be on track to stay within 1.5°C,
States must reduce annual emissions by 43 per cent from 2019 levels before 2030.
Published NDCs will only get us to a 4 per cent reduction, and the trend from
implemented NDCs shows that emissions are on track to actually increase by
5 per cent.\(^{141}\) Indeed, just this past Friday, the UNFCCC Secretariat issued its first
global stocktake on Paris Agreement commitments, which stated, “the window to
keep limiting warming to 1.5°C is closing rapidly, and progress is still inadequate
based on the best available science.”\(^{142}\) Publishing and implementing NDCs that are
plainly insufficient to limit global average temperature to within 1.5°C cannot possibly
satisfy the obligation under the Convention to take all necessary measures to
prevent, reduce, and control pollution of the marine environment by greenhouse gas
emissions, or to do the utmost in exercising due diligence consistent with the best
available science.

In addition, the reality is that some pathways to an average increase limited to no
more than 1.5 degrees around the end of the century still involve significant
temporary increases above 1.5 degrees with devastating effects on the marine
environment – in IPCC terms these are referred to as temperature “overshoot”

\(^{138}\) COP27, Decision 21/CP.27, UN Doc. FCCC/CP/2022/10/Add.2 (2023), ¶ 7; UNFCCC-COP27,
Decision 2/CP.27 (2022).

\(^{139}\) Australia Written Statement, ¶¶ 36-41, 46, 51; Canada Written Statement, ¶¶ 42, 62; European
Union Written Statement, ¶¶ 28, 67-69, 92-94; United Kingdom Written Statement, ¶ 68-69; Singapore
Written Statement, ¶¶ 38-41.

\(^{140}\) COSIS Written Statement, ¶ 364.

\(^{141}\) See UNEP, EMISSIONS GAP REPORT (2022); CAT Emissions Gap, CLIMATE ACTION TRACKER,
SYNTHESIS REPORT (2023), p. 25, Figure 2.5.

\(^{142}\) UNFCCC Secretariat, Technical dialogue of the first global stocktake: Synthesis report by the co-
facilitators on the technical dialogue, FCCC/SB/2023/9 (8 Sep 2023) ¶ 80.
scenarios. NDCs, considered individually and jointly, may thus be compliant with the Paris Agreement, but nevertheless would be inconsistent with obligations under the Convention. For example, even current levels of warming have caused widespread coral bleaching the world over.144

Now, that is not to say that NDCs are irrelevant to the Law of the Sea Convention in this context: they are an internationally recognized means by which a State could set forth the measures it is taking relevant to mitigating the deleterious effects of climate change, and in so doing potentially meet its obligations under the Convention. They also cast light on what States deem are needed and practicable measures to be taken. But they are neither a ceiling nor a floor for Part XII obligations, and their mere publication cannot suffice, cannot suffice to meet those obligations.

To sum up on this point, it is the best available science that determines what measures are “necessary” with respect to the obligations under Part XII relating to pollution of the marine environment emanating from greenhouse gas emissions. Currently, to fulfil their obligation under the Convention under article 194(1) to take all measures necessary to prevent, reduce and control marine pollution, States Parties must do at least all that is necessary to limit average global temperature rise to no more than 1.5°C, using the “best practical means at their disposal and in accordance with their capabilities.”

Now to be clear, the 1.5°C threshold is set by virtue of a global assessment of aggregate harm that is continuously developing; greenhouse gas emissions constitute “pollution of the marine environment” under article 1(1)(4) because “deleterious effects” result or are likely to result even at thresholds far below the 1.5°C standard. At the same time, what is “necessary” as a general matter cannot entail preventing absolutely every last speck of pollution; but in fact, the 1.5-degree threshold and the associated mitigation timetables are premised upon significantly reducing the risk and impacts of greenhouse gas emissions on the marine environment and preventing catastrophic harm in the higher emissions scenarios.145

For purposes of the Advisory Opinion, the Commission respectfully submits that the specific obligations of States Parties under the Convention must be interpreted consistent with and as informed by the international standard set by the best available science, and currently that means doing all that is necessary to stay at least within the 1.5°C limit. This is even while acknowledging the variable nature of that standard due to, for example, advances in scientific understanding of the impacts of climate change on the marine environment or particular circumstances of “deleterious effects” due to, for example, regional variations.


145 See, e.g., Paris Agreement, articles 2(1)(a); IPCC, Summary for Policymakers, SPECIAL REPORT ON THE OCEAN AND CRYOSPHERE IN A CHANGING CLIMATE (2019), pp. 24-25.
Likewise, to fulfil their obligation under article 194(2) of the Convention to take all measures necessary to ensure that activities do not cause damage by transboundary pollution and under article 194(5) to protect rare or fragile marine ecosystems and habitats, States Parties must be at least as diligent as necessary to limit average global temperature rise to no more than 1.5°C.

Further, the science also informs what constitutes necessary action by States Parties to meet that global standard, whether such Parties are acting individually or jointly.\textsuperscript{146} In other words, the measures objectively necessary for an individual State Party to meet that standard under article 194(1) will differ based on the scientific evidence particular to that State, including as to its best practical means and capabilities. In that respect, both the mathematics of climate emissions and differing capabilities show that, to achieve the 1.5-degree temperature limit, high-emitting, high-resource States will have to make more progress in reducing and capturing greenhouse gas emissions than low-emitting, low-resource States.\textsuperscript{147}

Mr President, members of the Tribunal, turning to my second point, article 194 is one of some 30 articles regulating pollution of the marine environment. COSIS set these out in detail in Chapter 7 of its written statement. States Parties’ written statements reveal little controversy about them, and for good reason: these obligations flow directly from express, specific provisions of the Convention.

I will not repeat what is in the written statement\textsuperscript{148} or what is clearly set out in the Convention. There is simply one core point I wish to emphasize: just as with article 194, the best available science is also key to the interpretation and implementation of States Parties’ other obligations under Part XII to prevent, reduce and control pollution of the marine environment.

To illustrate this, I address four categories of specific obligations.

First, States Parties must follow the best available science in fulfilling their obligations to “adopt laws and regulations to prevent, reduce and control” marine pollution from land-based sources, from or through the atmosphere, and by vessels. Articles 207(1) and 212(1) explicitly require that such laws and regulations with respect to land-based and atmospheric sources of pollution must “take into account internationally agreed rules, standards and/or recommended practices and procedures”. Article 213 further requires States Parties both to “enforce” such laws and regulations and to “adopt” those “necessary to implement applicable international rules and standards … to prevent, reduce and control” marine pollution from land-based sources. Likewise, under article 211(2) with respect to pollution from vessels, such laws and regulations must “at least have the same effect as that of generally accepted international rules and standards.” Accordingly, internationally agreed scientific standards as set out by the IPCC for example, must supply the content of those laws and regulations in achieving the 1.5-degree temperature limit. States Parties should also draw from the IPCC’s concrete recommendations for

\textsuperscript{146} See, e.g., UNCLOS, articles 194(1).
\textsuperscript{148} COSIS Written Statement, Ch. 7, § II.
reducing GHG emissions through legislation and policy governing energy generation, industry, transportation, agriculture, land use, and other areas.\textsuperscript{149}

Second, States Parties are required to undertake monitoring and environmental assessments on the risks or effects of greenhouse gases on the marine environment in accordance with “recognized scientific methods” under article 204.\textsuperscript{150} When States Parties have reasonable grounds to believe that planned activities – both at sea and on land – under their jurisdiction or control may cause substantial marine pollution through greenhouse gas emissions, article 206 requires them to assess the potential effects of those activities on the marine environment. To be accurate and effective, that assessment must account for the best available science.

Third, States Parties must also be guided by the science in fulfilling their obligations to provide scientific and technical assistance, as well as funds, to developing States to prevent, reduce, and control marine pollution in the form of greenhouse gases, primarily under article 202.\textsuperscript{151} This includes technical assistance in terms of addressing the comparatively less-developed data on climate change risks and impacts that are already harming small islands.\textsuperscript{152} This paucity is due principally to a lack of financial and technical resources for developing States, which implicate both article 202 and the preferential treatment terms of article 203. States Parties must also provide appropriate assistance to developing States in the “preparation of environmental assessments”\textsuperscript{153} and “minimization of the effects of major incidents” arising out of “serious pollution of the marine environment”,\textsuperscript{154} such as measures for adapting to severe weather events exacerbated by ocean heating.

Finally, States Parties should strive to generate and rely on the science relevant to climate change when fulfilling their obligations to cooperate directly or through international organizations to prevent, reduce and control marine pollution in accordance with articles 197, 198, 199, 200 and 201. Article 200 in particular refers to undertaking relevant “scientific research” and encouraging the exchange of “information and data”.\textsuperscript{155} Article 201 requires States Parties to cooperate to establish “scientific criteria for the formulation and elaboration of rules, standards and recommended practices and procedures” to prevent, reduce, and control marine pollution.\textsuperscript{156} Many of the relevant international bodies have scientific mandates bearing upon the science of climate change, including the IPPC, the UN Environmental Programme, the International Maritime Organization, the UNESCO Intergovernmental Oceanographic Commission, and the Conferences of the Parties of the UNFCCC and the Convention on Biological Diversity, all of which produce rigorous scientific data relevant to the obligations of States Parties in this important respect. When participating in these international fora, States Parties must make every effort to implement the necessary measures to mitigate climate change


\textsuperscript{150} See also UNCLOS, articles 205.

\textsuperscript{151} See UNCLOS, articles 202.

\textsuperscript{152} COSIS Written Statement, Annex 5, Maharaj Report, § II.

\textsuperscript{153} UNCLOS, articles 202(c).

\textsuperscript{154} UNCLOS, articles 202(b).

\textsuperscript{155} UNCLOS, articles 200.

\textsuperscript{156} UNCLOS, articles 201 (emphasis added).
impacts on the ocean and marine environment, consistent with the best available science.

Mr President, members of the Tribunal, I turn now to my final point, the Commission’s submission on the answer to the first question before the Tribunal. The Commission requests that the Tribunal declare the following specific obligations of States Parties under the Law of the Sea Convention in relation to marine pollution due to greenhouse gas emissions.

States Parties must, as a matter of urgency:

Individually or jointly as appropriate, take all measures necessary to prevent, reduce and control pollution of the marine environment from greenhouse gas emissions, including from land-based sources, from vessels, from or through the atmosphere, and all measures necessary to protect and preserve rare or fragile ecosystems and habitats of depleted, threatened, or endangered species and other forms of marine life, using for this purpose the best practicable means at their disposal and in accordance with their capabilities. States Parties must do so on the basis of the best available scientific and international standards, which require, at a minimum, taking all measures objectively necessary to: (a) limit average global temperature rise to no more than 1.5°C above pre-industrial levels, without overshoot, and taking account any current emission gaps; and reach global peaking of greenhouse gas emissions as soon as possible and undertake rapid reductions thereafter in accordance with the best available science.

(b) Take all measures necessary to ensure that greenhouse gas emissions from activities under their jurisdiction or control do not cause damage by pollution to other States and their environment, and do not spread beyond the areas where they exercise sovereign rights under the Convention, as informed by the duty of due diligence and best available scientific and international standards, consistent with the specific temperature goal and timetable noted in (a) above.

(c) Adopt and enforce laws and regulations to prevent, reduce, and control pollution of the marine environment from greenhouse gas emissions, including from land-based sources, from vessels, from or through the atmosphere, and from activities in the area, taking account of best available scientific and international standards, consistent with the specific temperature goal and timetable noted in (a) above. In so doing, States Parties should draw from the IPCC’s concrete

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157 UNCLOS, articles 194(1).
158 UNCLOS, articles 207(2).
159 UNCLOS, articles 211.
160 UNCLOS, articles 212(2).
161 UNCLOS, Art 194(5).
162 Paris Agreement, articles 4(1); IPCC, Summary for Policymakers, SIXTH ASSESSMENT SYNTHESIS REPORT (2023), p. 21–22.
163 UNCLOS, articles 194(2).
164 UNCLOS, articles 207(1), 207(5), 213.
165 UNCLOS, articles 211(2), 217, 218, 219, 220.
166 UNCLOS, articles 212(1), 222.
167 UNCLOS, articles 209, 215.
recommendations for reducing greenhouse gas emissions through legislation and
policy governing energy generation, industry, transportation, agriculture, land use,
and other areas.

(d) Cooperate directly or through international organizations to prevent, reduce and
control pollution of the marine environment from greenhouse gas emissions and
protect and preserve the marine environment from climate change as informed by
best available scientific and international standards, including by: undertaking
programmes of scientific research; encouraging the exchange of information and
data; publishing reports on the risks and effects of greenhouse gas emissions on the
marine environment; formulating and elaborating international rules and standards to
mitigate the drivers and impacts of climate change; and addressing any gaps in such
studies and reports, consistent with the specific temperature goal and timetable
noted in (a) above.168

(e) Provide technical, financial, and other appropriate assistance to developing
States, directly or through international organizations, to assess the impacts of
greenhouse gas emissions and take all measures to prevent, reduce, and control
pollution of the marine environment from greenhouse gas emissions as informed by
best available and international standards, consistent with the specific temperature
goal and timetable noted in (a) above.169

And (f) Undertake monitoring and assessment of planned activities under their
jurisdiction or control, including through environmental impact assessments and
contingency plans, to determine whether such activities may cause substantial
pollution of the marine environment, as informed by the duty of due diligence and
best available scientific and international standards, consistent with the specific
temperature goal and timetable noted in (a) above, and publish any such reports.170

Simply put, the Convention requires that States Parties at least take these measures
because they are what the best available science tells us is necessary to avoid
global catastrophe with respect to the world’s marine environment.

Mr President, distinguished members of the Tribunal, this concludes my
observations before you today. Thank you for your kind attention. May I ask that you
please invite Professor Philippa Webb to address you?

THE PRESIDENT: Thank you Ms Amirfar. I now give the floor to Ms Webb to make
her statement. You have the floor, Madam. Ms Webb, I understand that you would
wish to complete your statement before we break for lunch; so even if we go beyond
1:00, I will allow you the time.

THE PRESIDENT: Thank you very much.

MS WEBB: Thank you, Mr President, it will be no more than a couple of minutes.

168 UNCLOS, articles 197, 198, 199, 200, 201, 204(1), 205.
169 UNCLOS, articles 202, 203.
170 UNCLOS, articles 198, 204(2), 205, 206.
Mr President, distinguished members of the Tribunal, it is an honour to appear before you and to represent the Commission of small island States in these proceedings.

I – together with Professor Oral – will address the second question before the Tribunal: What are the specific obligations of State Parties to the United Nations Convention on the Law of the Sea . . . including under Part XII: . . . to protect and preserve the marine environment in relation to climate change impacts, including ocean warming and sea level rise, and ocean acidification?

This question concerns the meaning and scope of article 192, which provides that “States have the obligation to protect and preserve the marine environment.” This provision is an independent basis for imposing specific obligations on States, and it has a broader scope than article 194.

I will make four points. First, there is a very high degree of consensus on the content of article 192 in the written statements of States Parties and organizations. Second, there is some divergence of views of the relationship between the article 192 obligations and commitments that States have made under UNFCCC and the Paris Agreement. COSIS’s firm position, as set out by Professor Mbengue, Professor Brunnée, Professor Thouvenin and Ms Amirfar, is that compliance is to be assessed by reference to the meaning of UNCLOS and the best available science, taking into account the global climate regime.

Third, the obligations to “protect and preserve” go beyond, and add to, the obligation to “prevent, reduce and control.” Fourth, the duty of due diligence to protect and preserve the marine environment gives rise to three types of specific obligations. There is the forward-looking obligation to protect, to act to prevent damage, in the light of the fact that the marine environment is the world’s largest heat and carbon sink; there is the obligation to mitigate the risk of harm, to work to reduce the current and future harmful effects of climate change. Professor Oral will address the third type – the obligation to undertake adaptation measures – recognizing that climate change is here, the damage is being done and we have to build the marine environment’s resilience to climate change, now and into the future.

Turning to my first point: there is almost complete agreement in the written statements on article 192 being both a general obligation and a framework provision with independent legal force. States and organizations agree that it creates a broad substantive obligation to protect and preserve the marine environment, which reflects customary international law. The drafters of UNCLOS decided to emphasize the obligation in article 192 by “codifying it in a single article.” This broad obligation

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171 See Australia Written Statement, ¶¶ 42–44; Bangladesh, ¶ 50–51; Belize, ¶ 55–61; Brazil, ¶ 21; Canada, ¶ 64–65; Chile, ¶ 43, 48; European Union, ¶ 16–27; Micronesia, ¶ 33, 60; Mozambique, ¶ 4.3–4.10; Nauru, ¶ 52–55; Netherlands, ¶ 4.1–4.4, 6.2; New Zealand, ¶ 32, 79–83; Portugal, ¶ 21, 60–64; Republic of Korea, ¶ 6–15; Rwanda, ¶ 157–208; Sierra Leone, ¶ 74–79; Singapore, ¶ 62–65; United Kingdom, ¶ 44–52; Vietnam, ¶ 4.3–4.4; African Union, ¶ 247–259; IUCN, ¶ 125–129; ACOPS, ¶ 5, 23; CIEL/Greenpeace, ¶ 28–29; Our Children’s Trust/Oxfam, p. 29; Observatory for Marine and Coastal Governance, p. 15–16; Opportunity Green, ¶ 24–27 WWF, ¶ 107–114.

gains colour when read in the context of the other provisions of Part XII as well as other international rules and standards. They agree that the obligation requires States both to take positive action to protect and preserve the marine environment and to refrain from degrading the marine environment.¹⁷³

Crucially, there is agreement that article 192 goes beyond article 194, and that the second question before you therefore covers a different domain from the first. Article 192 is not limited to marine pollution. It applies to all harm caused to the marine environment – any destruction or alteration or threats from any source.¹⁷⁴ This includes harm to the living resources and marine life.¹⁷⁵ As Professor Alan Boyle has stated, it is clear that Part XII of UNCLOS, which article 192 opens, “encompasses protection of ecosystems, conservation of depleted and endangered species of marine life and control of alien species.”¹⁷⁶ You will recall Dr Cooley’s and Dr Maharaj’s compelling evidence of the catastrophic harm that climate change has caused and risks causing to marine ecosystems, especially those that rely on coral reefs and seagrasses.

Article 192 also has no spatial restriction. It applies to the marine ecosystem, the water column, the seabed, the entire ocean, and the marine cryosphere.¹⁷⁷ There is no distinction between spaces under and beyond national jurisdiction: internal waters, territorial seas, exclusive economic zones, high seas.¹⁷⁸ The South China Sea Tribunal noted that “ocean currents and the life cycles of marine species create a high degree of connectivity between the different ecosystems,” meaning that the obligation to protect and preserve the marine environment includes areas that may be indirectly affected by harmful activities.¹⁷⁹

States and international organizations agree that article 192 reflects an obligation to act with due diligence.¹⁸⁰ As Professor Brunnée has explained, the requirements of due diligence increase with the degree of risk and severity of harm. The relevant standards are objective, specific and particularly severe. States are subject to a stringent obligation “to deploy adequate means, to exercise best possible efforts, to do the utmost.”¹⁸¹ In the context of the marine environment, that means undertaking specific obligations to protect, mitigate and adapt – a point to which I will return.

¹⁷³ See South China Sea (Philippines v. China), PCA Case No. 2013-19, Award on the Merits (12 July 2016), ¶ 941.
¹⁷⁴ See Chagos Marine Protected Area (Mauritius v United Kingdom), PCA Case No. 2011-0, Award (18 March 2015), ¶¶ 320, 538.
¹⁷⁵ Chagos Marine Protected Area (Mauritius v United Kingdom), PCA Case No. 2011-0, Award (18 March 2015), ¶¶ 320, 538.
¹⁷⁷ See South China Sea (Philippines v. China), PCA Case No. 2013-19, Award on the Merits (12 July 2016), ¶¶ 408, 945.
¹⁷⁹ See South China Sea (Philippines v. China), PCA Case No. 2013-19, Award on the Merits (12 July 2016), ¶ 825; Rwanda Written Statement, ¶ 165.
¹⁸⁰ See above note 171.
¹⁸¹ Responsibilities and Obligations of States with Respect to Activities in the Area, Case No. 17, Advisory Opinion, 2011 ITLOS Rep. 10 (1 February), ¶ 110.
Mr President, members of the Tribunal, my second point is on the relationship between article 192 and the global climate regime. Certain of the written statements argue that compliance with these instruments establishes compliance with article 192 obligations; that the Paris Agreement “lowers the threshold and the level of discretion that States Parties have under Part XII of UNCLOS”; that the Paris Agreement is “one of the most important standards” in assessing the obligation of due diligence under article 192; that implementing Paris is “an important indicator” of the extent to which States are meeting their article 192 obligations.

Other States and international organizations, like COSIS, emphasize that what should be taken from the Paris Agreement is not the standard for assessing UNCLOS obligations, but rather the temperature goal of pursuing efforts to limit the global average increase to 1.5°C above pre-industrial levels. As Professor Mbengue and Ms Amirfar have stated, there is no hierarchy of obligations. The global climate change regime is important for expressing consensus around the best available science and an international standard relevant to the interpretation of States Parties’ obligations under UNCLOS. In interpreting article 192, we must therefore also take into account the objective of increasing the ability of States to adapt to the adverse impacts of climate change and to foster resilience. And the obligations in article 192 inform how States should comply with their climate change obligations.

UNCLOS, the “constitution for the oceans”, is the instrument that governs compliance with the obligations to protect and preserve the marine environment. Issuing a Nationally Determined Contribution does not tick the box of compliance with article 192. Ms Amirfar explained that issuing NDCs is neither a floor nor a ceiling for States Parties' obligations under articles 194; so, too, for article 192.

Implementing an NDC may also be insufficient or irrelevant to fulfilling article 192. Protection and preservation of the marine environment is not a required part of the NDC process, which is focused on emission reduction targets and mitigation efforts.

My third point is that the obligations to protect and preserve the marine environment go beyond preventing, reducing and controlling marine pollution – and, again, in this way, the second question is broader than the first one.

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182 European Union Written Statement, ¶ 28; Australia Written Statement, ¶¶ 39–40; Singapore Written Statement, ¶ 38 (referring to articles 194 UNCLOS); Chile Written Statement, ¶¶ 56–60 (referring to articles 194 UNCLOS); Egypt Written Statement, ¶¶ 72–73; Portugal Written Statement, ¶ 93.
183 Portugal Written Statement, ¶ 93.
184 Republic of Korea Written Statement (in the context of both articles 192 and 194), ¶ 16. See also New Zealand Written Statement, ¶ 94(f); United Kingdom Written Statement, ¶ 69 (in the context of articles 194).
185 Canada Written Statement, ¶ 62(viii).
186 COSIS Written Submission, ¶¶ 357–365; Rwanda Written Statement, ¶¶ 239–240; Nauru Written Statement, ¶¶ 47–50; Federated States of Micronesia Written Statement, ¶ 50; Bangladesh Written Statement, ¶ 42; African Union Written Statement, ¶ 202 (referring to articles 194(1)); CIEL/Greenpeace Written Statement, ¶ 82.
187 Paris Agreement, Arts. 3, 4.4.
The duty to “protect” requires States to prevent future damage to the marine environment. It requires them not only to take action to prevent harm to the marine environment caused by their agents but also individuals within their control. As the South China Sea Tribunal explained, quoting the International Court of Justice in the Nuclear Weapons Advisory Opinion: 188 The corpus of international law relating to the environment, which informs the content of the general obligation in article 192, requires that States “ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control.”

The South China Sea Tribunal found on the facts of that case that article 192 includes a due diligence obligation “to prevent the harvesting of species that are recognized internationally as being at risk of extinction and requiring international protection.” 189 The Tribunal said that “article 192 imposes a due diligence obligation to take those measures ‘necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life’.” The scope of article 192 therefore covered the direct harvesting of species at risk of extinction as well as “the prevention of harms that would affect depleted, threatened, or endangered species indirectly through the destruction of their habitat.” 190

The duty to “preserve” under article 192 means maintaining or improving the present condition of the marine environment. It goes beyond protection 191 and includes the duty to restore. 192 The plain meaning of “preserve” is to “keep in its original or existing state” and “to make lasting”. 193 The obligation is to restore degraded marine environments and ecosystems. It is “the logical measure” to ensure improvement of the present condition of the marine environment. 194 It is closely related to the notion of sustainability – maintaining the marine environment so we can address existing harm as well as future activities.

The duty to restore did not arise as such in the travaux préparatoires of UNCLOS, but it has become an important norm in international environmental law. It is linked with the objective of enhancing ecosystem resilience, which, as Dr Cooley has pointed out, is crucial to addressing the impacts of climate change. In a similar vein, Principle 7 of the Rio Declaration provides that “States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem.” 195 And the 1995 Global Programme of Action speaks of “facilitating the realization of States to preserve and protect the marine environment”

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189 Id., at ¶ 956.
190 Id., at ¶ 959.
192 COSIS Written Statement, ¶¶ 389–392, 422; Mozambique Written Statement, ¶¶ 4.17–4.18; Sierra Leone Written Statement, ¶¶ 76–79; WWF Written Statement, ¶ 110–111.
193 Oxford English Dictionary, “preserve”.
by assisting them to take measures to “recover” the marine environment “from the impacts of land-based activities.”

The 1992 Convention on Biological Diversity, with 196 Contracting Parties, requires States to “[r]ehabilitate and restore degraded ecosystems and promote the recovery of threatened species.” According to the Contracting Parties, ecological restoration refers to the process of managing or assisting the recovery of an ecosystem that has been degraded, damaged or destroyed as a means of sustaining ecosystem resilience and conserving biodiversity.

Maintaining and improving ecosystem resilience is also one of the general principles and approaches stipulated in the BBNJ Treaty.

So the duty to preserve includes reversing degradation and increasing resilience, and it applies to the entire marine environment. This accords with UNCLOS as a “living instrument”, as Professor Okowa has explained yesterday.

Mr President, members of the Tribunal, my last point is that the specific obligations of States to protect and preserve the marine environment in relation to climate change impacts include the obligation to protect marine ecosystems to increase their resilience and enable them to continue to minimize the extent of climate change and the extent to which the effects of climate change are felt in the atmosphere; and the obligation to mitigate emissions. Professor Oral will address adaptation.

As Dr Cooley explained, and many States and organizations have recognized: the ocean is currently the world’s primary carbon and heat sink, absorbing 26 per cent of all carbon dioxide emissions and over 90 per cent of the excess heat generated by these emissions. It is not just the ocean water, but also the seagrass meadows, tidal marshes and mangroves that form “blue carbon” ecosystems capable of sequestering significant amounts of carbon dioxide.

If these sinks are degraded by the effects of climate change, it will greatly reduce the ocean’s ability to act as a heat and carbon sink. As Dr Cooley explained, this will cause significant harm to the marine environment and magnify the effects of climate change.

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197 Convention on Biological Diversity (5 June 1992), Art. 8(f).
199 BBNJ Treaty, A/CONF.232/2023/4 (19 June 2023), Arts. 7(g)–(h), 17(c).
200 Pierre Friedlingstein et al., *Global Carbon Budget 2022*, 14 *EARTH SYSTEM SCIENCE DATA* 4811 (2022), pp. 4814, 4834; Mauritius Written Statement, ¶ 20, 65; Republic of Korea Written Statement, ¶ 23; Rwanda Written Statement, ¶¶ 275, 278–279; Singapore Written Statement, ¶ 62.
Article 192 therefore requires States to protect the marine environment to enable it to continue to serve its function as a sink and in this way prevent further harm to the marine environment, such as through ocean acidification. Measures include building resilience in marine ecosystems, such as actively protecting tidal marshes, mangroves and sea grasses. COSIS endorses the suggestions of other participants in these proceedings to: protect coral reefs by reducing the effects of coastal runoff, pollution, overfishing, and the presence of invasive species\textsuperscript{203} and to address microplastic pollution that inhibits the ability of global phytoplankton populations to absorb carbon in the ocean.\textsuperscript{204}

To this end, States may be required to implement marine protected areas to protect vulnerable ecosystems and species. The Chagos Marine Protected Area Tribunal determined that the protection and preservation of the marine environment is not limited to measures related to pollution control, and extends to the declaration of marine protected areas.\textsuperscript{205} As States and organizations have recommended in these proceedings: the best available science indicates that States should establish marine protected areas to help prevent sea-level rise and loss of biodiversity;\textsuperscript{206} marine protected areas may help fulfil the duty of due diligence, in particular for fragile ecosystems.\textsuperscript{207}

The obligation to restore the marine environment entails engaging in sustainable management and active restoration measures of degraded ecosystems, to conserve and enhance the ocean’s carbon cycling services that underpin its role in the global climate system. States should in particular enhance or restore habitats and improve the conservation of species, such as whales, that help sequester large amounts of carbon. States should rebuild overexploited or depleted fisheries.\textsuperscript{208} These steps would also enhance the ability of those ecosystems to withstand the effects of climate change by enhancing their resilience.

Importantly, this obligation must not be implemented in a manner that exacerbates ocean acidification, such as, through ocean fertilization.\textsuperscript{209}

The obligation to mitigate concerns the impact of greenhouse gas emissions. The IPCC’s concrete recommendations for reducing emissions should be given effect in the light of, and in a manner that will fulfil, the obligation to take all measures necessary to protect and preserve marine biodiversity. This includes specific measures to mitigate the intake of carbon dioxide by the ocean resulting in acidification.

\textsuperscript{203} Rwanda Written Statement, ¶ 280.

\textsuperscript{204} Rwanda Written Statement, ¶ 281.

\textsuperscript{205} Chagos Marine Protected Area (Mauritius v United Kingdom), PCA Case No. 2011-0, Award (18 March 2015), ¶¶ 320, 538.

\textsuperscript{206} Chile Written Statement, ¶¶ 97–101; Micronesia Written Statement, ¶ 62.

\textsuperscript{207} European Union Written Statement, ¶ 21; Chile Written Statement, ¶¶ 97–101, 120; Rwanda Written Statement, ¶ 272(b); Micronesia Written Statement, ¶ 62; IUCN Written Statement, ¶¶ 128, 148.

\textsuperscript{208} Mozambique Written Statement, ¶¶ 4.17–4.18.

Dr Cooley and Ms Amirfar took you to the IPCC’s findings regarding mitigation measures that States must adopt to keep global warming within 1.5°C of pre-industrial levels and avoid some of the most devastating consequences of climate change, consequences that will in some instances be felt first and irreversibly by vulnerable and fragile marine ecosystems such as warm-water coral reefs. I will highlight a further concrete step that States should take towards mitigation: substantive, transparent and comprehensive environmental impact assessments.

As Ms Amirfar stated regarding articles 194, if States have reasonable grounds to believe that a development may cause substantial marine pollution, necessary measures include the obligation of a State to conduct an environmental impact assessment under articles 206, including the duty to monitor the effects of such activities under articles 204. It is also an obligation of customary international law, as recognized in the Area Advisory Opinion. In the context of article 192, environmental impact assessments should not be limited to the impact of pollution, but extend to direct and indirect harm to the marine environment. COSIS endorses the suggestion made in the written statements that environmental impact assessments should “become a form of reflex for planned activities” and shared consistently with articles 205 to ensure the public are fully informed; they should “include the cumulative effects of climate change, ocean acidification, deoxygenation and other related harms . . . . [The assessments] need to include socio-economic impacts as well as ecological and physical dimensions.”

In relation to their article 192 obligations, States are necessarily required to take internal measures, such as the passing of legislation, the making of regulations, and the taking of executive action, to ensure that these obligations are implemented.

In sum, the obligations to protect and preserve the marine environment are broad and substantive. Under article 192, States are under specific substantive and procedural obligations, including a duty of due diligence, to protect and preserve the marine environment from the deleterious effects of climate change, in areas both within and beyond national jurisdiction, and regardless of the vector through which those effects occur.

Mr President, members of the Tribunal, thank you for your kind attention. I ask that you call Professor Oral to the podium to continue the submissions on the second question before the Tribunal.

THE PRESIDENT: Thank you, Ms Webb. This brings us to the end of this morning’s sitting. The hearing will be resumed at 3.00 pm. The sitting is now closed.

(Lunch break)