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Summary
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Obligations of States in respect of Climate Change

Summary of the Advisory Opinion of 23 July 2025

Chronology of the procedure (paras. 1-36)

The Court first recalls that on 12 April 2023, the Secretary-General of the United Nations officially communicated to the Court the decision taken by the General Assembly of the United Nations (hereinafter the "General Assembly") to submit to it the questions set forth in its resolution 77/276 adopted on 29 March 2023.

The resolution reads as follows:

"*The General Assembly*,

. . . . . .

Decides, in accordance with Article 96 of the Charter of the United Nations, to request the International Court of Justice, pursuant to Article 65 of the Statute of the Court, to render an advisory opinion on the following question:

> 'Having particular regard to the Charter of the United Nations, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the United Nations Framework Convention on Climate Change, the Paris Agreement, the United Nations Convention on the Law of the Sea, the duty of due diligence, the rights recognized in the Universal Declaration of Human Rights, the principle of prevention of significant harm to the environment and the duty to protect and preserve the marine environment,
>
> *(a)* What are the obligations of States under international law to ensure the protection of the climate system and other parts of the environment from anthropogenic emissions of greenhouse gases for States and for present and future generations?
>
> *(b)* What are the legal consequences under these obligations for States where they, by their acts and omissions, have caused significant harm

to the climate system and other parts of the environment, with respect to:

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

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

I. JURISDICTION AND DISCRETION (PARAS. 37-49)

The Court first addresses the question of whether it has jurisdiction to give the advisory opinion requested. It notes that, in accordance with the requirement in Article 96 of the Charter and Article 65 of its Statute, it must satisfy itself that the question on which it is requested to give its opinion is a "legal question". It considers that the two questions put to it by the General Assembly are legal questions and therefore that it has jurisdiction in the matter. It is also of the view that there is no compelling reason for it to decline to give the opinion requested by the General Assembly.

II. GENERAL CONTEXT AND SCIENTIFIC ASPECTS (PARAS. 50-87)

The Court then turns to the context in which resolution 77/276 was adopted, as well as to the relevant scientific background. It notes in this respect that the consequences of climate change are severe and far-reaching; they affect both natural ecosystems and human populations. Rising temperatures are causing the melting of ice sheets and glaciers, leading to sea level rise and threatening coastal communities with unprecedented flooding. Extreme weather events, such as hurricanes, droughts and heatwaves, are becoming more frequent and intense, devastating agriculture, displacing populations and exacerbating water shortages. Furthermore, the disruption of natural habitats is pushing certain species toward extinction and leading to irreversible loss of biodiversity. Human life and health are also at risk, with an increased incidence of heat-related illnesses and the spread of climate-related diseases. These consequences underscore the urgent and existential threat posed by climate change. In examining these consequences, the Court relies primarily on the reports of the Intergovernmental Panel on Climate Change (hereinafter the "IPCC"), which participants agree constitute the best available science on the causes, nature and consequences of climate change. It further observes that the adverse effects of climate change on the climate system have been acknowledged by the United Nations, including the United Nations Environment Programme, and its specialized agencies, such as the World Meteorological Organization, the World Health Organization and the International Maritime Organization.

The IPCC has concluded with "very high confidence" that risks and projected adverse impacts and related loss and damage from climate change will escalate with every increment of global warming. It adds that these risks, projected adverse impacts and related loss and damage are "higher for global warming of 1.5°C than at present, and even higher at 2°C".

III. SCOPE AND MEANING OF THE QUESTIONS POSED BY THE GENERAL ASSEMBLY (PARAS. 88-111)

As the Court has previously stated, it has the power to interpret the questions put to it for an advisory opinion. If questions put to the Court are ambiguous or vague, the Court may clarify them before giving an opinion. In the present instance, the Court considers that there is no need for it to reformulate the questions submitted to it. However, since diverging views have been expressed as to

the scope and meaning of the questions, the Court will examine the questions put to it in order to ascertain the precise meaning and scope to be attached to the words and expressions used therein.

A. Scope of the General Assembly's request (paras. 93-97)

In formulating its reply to the questions, the Court must frame the material, territorial and temporal scope of its inquiry.

With regard to its material scope, the Court observes that question *(a)* posed by the General Assembly asks the Court to set forth the legal obligations of States under international law to "ensure the protection of the climate system and other parts of the environment from anthropogenic emissions of greenhouse gases". Question *(b)* asks the Court to address the legal consequences under these obligations for the "acts and omissions" of States where they have caused significant harm to the climate system and other parts of the environment. In the Court's view, the two questions are interrelated and require the Court to identify the obligations of States in respect of activities that adversely affect the climate system, as well as the legal consequences arising from the breach of these obligations. In this regard, the Court is further of the view that the relevant conduct for the purposes of these advisory proceedings is not limited to conduct that, itself, directly results in emissions of greenhouse gases (hereinafter "GHGs"), but rather comprises all actions or omissions of States which result in the climate system and other parts of the environment being adversely affected by anthropogenic GHG emissions.

Turning to the territorial scope of the request, it follows from the Court's conclusions on the material scope of the questions put to it that the General Assembly did not intend to impose any territorial limits to the Court's inquiry. The references in the preamble to the request to the protection of the global climate lead it to conclude that it is requested by the General Assembly to formulate its reply not in respect of any particular territory or regions, but in global terms, especially since GHG emissions are unequivocally caused by human activities, which are not territorially limited.

With regard to the temporal scope of the request, the Court observes that while these temporal issues may be particularly relevant for an *in concreto* assessment of the responsibility of States for breaches of obligations pertaining to the protection of the climate system, the present opinion is not concerned with the invocation and determination of the responsibility of individual States or groups of States. Rather, the present opinion considers the legal obligations of all States under question *(a)* and identifies the relevant legal régime applicable to legal consequences arising under those legal obligations in reply to question *(b)*.

B. Meaning and scope of question *(a)* (paras. 98-100)

Turning to the scope of question *(a)*, the Court observes that it is requested by the General Assembly to identify "the obligations of States under international law to ensure the protection of the climate system and other parts of the environment". In the Court's view, the unqualified reference to obligations "under international law" indicates the intention of the General Assembly to seek the Court's opinion on the obligations incumbent upon States under the entire corpus of international law. This interpretation of the scope of the first question is confirmed by the *chapeau* to the questions, which requests the Court, when formulating its reply, to have "particular regard" to certain legal instruments, and rules and principles of international law.

C. Meaning and scope of question *(b)* (paras. 101-111)

The Court then turns to question *(b)*, and considers that the meaning and scope of the question rests on the interpretation of the following terms:

1. "Under these obligations"

At the outset, the Court observes that question *(b)* is connected with question *(a)*. It considers that the use of the phrase "under these obligations" contained in question *(b)* means that the legal consequences to be determined by the Court are those arising from the various obligations under international law which the Court is called upon to identify under question *(a)*.

2. "Legal consequences"

With regard to the term "legal consequences" contained in question *(b)*, the Court observes that, in general, legal consequences are identified and addressed through the application of the secondary rules of international law concerning the responsibility of States for internationally wrongful acts. In this context, the Court considers that it is only called upon, first, to establish the applicable legal framework of State responsibility in respect of States that have breached their obligations to protect the climate system, and, second, to outline in general terms the legal consequences flowing therefrom. In doing so, the Court does not prejudge the merits of any future claims that may be brought in relation to the subject-matter of the present proceedings before courts or tribunals.

3. Legal consequences "for States" and with respect to States that are "specially affected" or "are particularly vulnerable"

The term "for States" contained in question *(b)* (i) refers to States that, by their actions or omissions, may have adversely affected the climate system and other parts of the environment through GHG emissions. The Court recalls that it is not called upon to determine the responsibility of any State or group of States under international law, generally or in any specific instance.

As for legal consequences with respect to certain categories of States that are "specially affected" or "are particularly vulnerable", the Court notes that the application of the rules on State responsibility under customary international law does not differ depending on the category or status of an injured State. Thus, "specially affected" States or States that are "particularly vulnerable" are in principle entitled to the same remedies as other injured States. The Court recognizes, however, that certain States, in particular small island developing States, have faced and are likely to face greater levels of climate change-related harm owing to their geographical circumstances and level of development. A unique situation faced by small island States and low-lying coastal States was addressed by many participants that raised concerns over issues of sea level rise. However, in the Court's view, these matters do not fall within the scope of question *(b)*. Rather, they are governed by the relevant primary rules of international law, in particular rules concerning maritime zones and entitlements and statehood. Accordingly, these matters will be addressed in the Court's consideration of the relevant obligations of States under question *(a)*.

4. Legal consequences with respect to "peoples and individuals"

The Court observes that question *(b)* (ii) enquires about the legal consequences "with respect to . . . [p]eoples and individuals of the present and future generations affected by the adverse effects of climate change". The Court considers that whether individuals are entitled to invoke a State's responsibility for failure to comply with obligations identified under question *(a)* depends not on the general rules on State responsibility, but on the specific treaties and other legal instruments that create procedural and substantive rights and obligations governing the relationship between the States and individuals concerned.

IV. QUESTION *(A)* PUT TO THE COURT: OBLIGATIONS OF STATES IN RESPECT OF CLIMATE CHANGE (PARAS. 112-404)

A. Applicable law (paras. 113-173)

In its request, the General Assembly invites the Court to have "particular regard to"

> "the Charter of the United Nations, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the United Nations Framework Convention on Climate Change, the Paris Agreement, the United Nations Convention on the Law of the Sea, the duty of due diligence, the rights recognized in the Universal Declaration of Human Rights, the principle of prevention of significant harm to the environment and the duty to protect and preserve the marine environment".

The phrase "particular regard to", while indicating that a wide range of international legal rules and principles are potentially relevant, does not mean that the General Assembly requests the Court to address every rule of international law, including the obligations contained therein, in respect of climate change. The Court therefore identifies the most directly relevant applicable law governing the questions of which it has been seised.

1. Charter of the United Nations

The Charter of the United Nations, which is a pillar of contemporary international law, requires States, *inter alia*, to act in accordance with certain principles, including when addressing problems of common concern, such as climate change. Accordingly, the Charter forms part of the most directly relevant applicable law.

2. Climate change treaties

The United Nations Framework Convention on Climate Change (hereinafter the "UNFCCC"), which entered into force on 21 March 1994, the Kyoto Protocol, which entered into force on 16 February 2005, and the Paris Agreement, which entered into force on 4 November 2016, complement each other and are the principal legal instruments regulating the international response to the global problem of climate change. The Framework Convention establishes the ultimate objective, namely to stabilize GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, as well as the basic principles and general obligations of States in respect of climate change. The Kyoto Protocol and the Paris Agreement, for their part, translate these basic principles and general obligations into a set of more specific interrelated obligations. The Court considers that the lack of agreement on a further commitment period under the Kyoto Protocol after the adoption of the Paris Agreement does not mean that the Kyoto Protocol has been terminated. The Kyoto Protocol therefore remains part of the applicable law.

The Court thus concludes that the three climate change treaties, namely the UNFCCC, the Kyoto Protocol and the Paris Agreement, form part of the most directly relevant applicable law.

3. United Nations Convention on the Law of the Sea

The request from the General Assembly includes the United Nations Convention on the Law of the Sea (hereinafter "UNCLOS") among the sources to which the Court is asked to have "particular regard". In the view of the Court, UNCLOS also forms part of the most directly relevant applicable law.

4. Other environmental treaties

The Court then determines the other environmental treaties which form part of the most directly relevant applicable law, namely the Vienna Convention for the Protection of the Ozone Layer (hereinafter the "Ozone Layer Convention"), the Montreal Protocol on Substances that Deplete the Ozone Layer (hereinafter the "Montreal Protocol"), the Convention on Biological Diversity (hereinafter the "Biodiversity Convention"), and the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (hereinafter the "Desertification Convention").

The Court is aware that there are many other treaties which are relevant for the efforts of the international community of States to address the global problem of climate change. However, the Court confines itself to examining the most directly relevant applicable law regarding climate change.

5. Customary international law

(a) ***Duty to prevent significant harm to the environment***

In its Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*, the Court recognized that the duty to prevent significant harm to the environment is not confined to instances of direct cross-border harm and that it applies to global environmental concerns. Therefore, this duty also applies with respect to the climate system and other parts of the environment.

The duty to prevent significant harm to the environment is an obligation to act with due diligence. The determination of what is required by due diligence ultimately "calls for an assessment *in concreto*" of what is reasonable under the specific circumstances in which a State finds itself. This does not exclude the identification of a required standard of conduct at a general level, depending on the overall character of the risk to the part of the environment in question. This is particularly apposite with respect to climate change because the specific character of the risk of significant harm to the climate system is indisputably established.

Under these circumstances, the Court recognizes that the standard of due diligence for preventing significant harm to the climate system is stringent. Moreover, due diligence entails not only the adoption of appropriate rules and measures, but also a certain level of vigilance in their enforcement and the exercise of administrative control. As concerns climate change, a heightened degree of vigilance and prevention is required.

The Court concludes that the duty of States to prevent significant environmental harm applies in the context of climate change and that this duty forms part of the most directly relevant applicable law.

(b) ***Duty to co-operate for the protection of the environment***

The duty to co-operate lies at the core of the Charter of the United Nations. This obligation has been spelled out in the "Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations" of 24 October 1970. The Court has held that "the adoption by States of this text affords an indication of their *opinio juris* as to customary international law". That observation also applies to the duty to co-operate in so far as it finds expression in many binding and non-binding instruments relating specifically to the environment. In view of the related practice of States, the Court considers that the duty of States to co-operate for the protection of the environment is a rule whose customary character has been established. This duty to co-operate is intrinsically linked to the duty to prevent significant

harm to the environment, because unco-ordinated individual efforts by States may not lead to a meaningful result.

For these reasons, the Court considers that the duty to co-operate for the protection of the environment forms part of customary international law and can also serve as a guiding principle for the interpretation of other rules. It forms part of the most directly relevant applicable law.

6. International human rights law

The Court considers that the core human rights treaties, including the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights, adopted in 1966, and the human rights recognized under customary international law form part of the most directly relevant applicable law.

7. Other principles

Given its continuous and uncontested universal recognition, the Court considers that the principle of sustainable development, which concerns the "need to reconcile economic development with protection of the environment", guides the interpretation of certain treaties and the determination of rules of customary international law, including the duty to prevent significant harm to the environment and the duty to co-operate for the protection of the environment.

The Court is of the view that the principle of common but differentiated responsibilities and respective capabilities, which reflects the need to distribute equitably the burdens of the obligations in respect of climate change, taking into account, *inter alia*, States' historical and current contributions to cumulative GHG emissions, and their different current capabilities and national circumstances, is a manifestation of the principle of equity and guides the interpretation of obligations under international environmental law beyond its express articulation in different treaties. The principle of common but differentiated responsibilities and respective capabilities does not establish new obligations but is relevant for the interpretation of treaties and the determination of rules of customary law relating to the environment.

The Court considers that the function of equity as a legal principle that is not to displace the law or to exceed its limits but to derive an equitable solution as appropriate from the applicable law is the same in the context of the obligations in respect of climate change, including those contained in the UNFCCC and the Paris Agreement.

In the Court's view, intergenerational equity, as an expression of the idea that present generations are trustees of humanity tasked with preserving dignified living conditions and transmitting them to future generations, is a manifestation of equity in the general sense and thus shares its legal significance as a guide for the interpretation of applicable rules.

The Court observes that where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation. It is of the view that the measures under the climate treaties must be taken with these considerations in mind.

The Court does not consider that the "polluter pays" principle, whereby "the polluter should, in principle, bear the cost of pollution", is part of the applicable law for the purposes of this Advisory Opinion. This does not, however, preclude the possibility that forms of strict liability for hazardous acts and other kinds of acts that are not wrongful under international law are developing.

For these reasons the Court concludes that the principles of sustainable development, common but differentiated responsibilities and respective capabilities, equity, intergenerational equity and the

precautionary approach or principle are applicable as guiding principles for the interpretation and application of the most directly relevant legal rules.

8. Question of *lex specialis*

The Court then turns to the question of whether any of the rules thus identified are excluded by virtue of the interpretative principle of *lex specialis*. This question concerns the relationship between the climate change treaties and other rules of international law.

The Court notes at the outset that it is a generally recognized principle that, when several rules bear on a single issue, they should, to the extent possible, be interpreted so as to give rise to a single set of compatible obligations.

The principle of *lex specialis* is a maxim of interpretation that is used for determining which of several potentially applicable rules is to prevail or whether the rules simply coexist. It is generally accepted that, in some cases, a specific rule, or a specific set of rules, takes precedence over more general or less focused rules, while in other cases the specific rule should be seen as an elaboration of one or more general rules, the latter continuing to play an interpretative role in the background. The application of the *lex specialis* principle depends on the circumstances of each case.

The International Law Commission (hereinafter the "ILC") has explained that for the *lex specialis* principle to apply it is not enough that the same subject matter is dealt with by two provisions; there must be some actual inconsistency between them, or else a discernible intention that one provision is to exclude the other. The Court cannot find any actual inconsistency between the provisions of the climate change treaties and other rules and principles of international law that may be relevant for the response to question *(a)*. On the contrary, the preambles of the UNFCCC and the Paris Agreement themselves contain references to other rules and principles. Nor can the Court identify a discernible intention of the parties to the climate change treaties generally to displace other possibly applicable rules or principles. There is, in particular, no indication that these instruments are meant to apply while simultaneously excluding general customary international law or other treaty rules on the protection of the environment. Moreover, States parties to the climate change treaties were aware of their normative context and could have expressed a possible intention to displace other rules and principles had they so wished.

For these reasons, the Court considers that the argument according to which the climate change treaties constitute the only relevant applicable law cannot be upheld and finds that the principle of *lex specialis* does not lead to a general exclusion by the climate change treaties of other rules of international law.

9. Conclusion

For the reasons given above, the Court is of the view that the most directly relevant applicable law consists of the Charter of the United Nations, the UNFCCC, the Kyoto Protocol, the Paris Agreement, UNCLOS, the ozone layer treaties, the Biodiversity Convention, the Desertification Convention, the customary duty to prevent significant harm to the environment and the duty to co-operate for the protection of the environment, and international human rights law, as well as certain guiding principles for the interpretation of various applicable rules and principles (sustainable development, common but differentiated responsibilities and respective capabilities, equity, intergenerational equity, and the precautionary approach or principle).

B. Obligations of States under the climate change treaty framework (paras. 174-270)

1. General overview of the climate change treaties

The Court then turns to the obligations of States under the climate change treaty framework, which comprises three legally binding instruments concluded by States to address the problem of climate change caused by anthropogenic GHG emissions, namely the UNFCCC, the Kyoto Protocol and the Paris Agreement. The Court examines these treaties and certain relevant decisions of governing bodies thereunder, in order to identify and clarify the main obligations of States concerning the protection of the climate system and other parts of the environment from anthropogenic GHG emissions.

In the process of interpretation, the Court takes into consideration the rules, principles, mechanisms and institutions established under the climate change treaties in order to identify and clarify the obligations of the parties. In this context, the key principles that permeate all three climate change treaties are those contained in Article 3 of the UNFCCC. These guiding principles are common but differentiated responsibilities and respective capabilities, the precautionary approach or principle, sustainable development, equity and intergenerational equity. The Court recalls that, while these principles do not constitute stand-alone obligations within the climate change treaty framework, they guide the interpretation of the treaty obligations. In addition to these principles, the Court notes that under the climate change treaties, the duty to co-operate, identified above as an obligation under customary international law, also serves as a guiding principle.

In interpreting their obligations under the climate change treaties, States also need to have recourse to the relevant decisions of the governing bodies of these treaties, which are the Conference of the Parties (hereinafter the "COP") of the UNFCCC, the COP serving as the meeting of the Parties (hereinafter the "CMA") to the Kyoto Protocol and the CMA to the Paris Agreement. The Court observes that in certain circumstances the decisions of these bodies have certain legal effects. First, when the treaty so provides, the decisions of COPs may create legally binding obligations for the parties. Second, decisions of these bodies may constitute subsequent agreements under Article 31, paragraph 3 *(a)*, of the Vienna Convention on the Law of Treaties, in so far as such decisions express agreement in substance between the parties regarding the interpretation of the relevant treaty, and thus are to be taken into account as means of interpreting the climate change treaties.

2. Relationship between the UNFCCC, the Kyoto Protocol and the Paris Agreement

In the view of the Court, there is no incompatibility between the three climate change treaties. On the contrary, they are mutually supportive, with the Kyoto Protocol and Paris Agreement providing greater specification to the general obligations contained in the UNFCCC. Indeed, the UNFCCC being a "framework convention", and in view of the general character of the obligations contained therein, the subsequent decisions by the parties — including decisions adopting protocols and agreements under the UNFCCC — are intended to interpret or give substance to obligations in the UNFCCC. Notwithstanding these observations, should there appear to be conflicts between the treaties, the Court is of the view that these should be resolved by applying the rules of treaty interpretation.

3. Obligations of States under the UNFCCC

The Court goes on to examine the obligations of parties under the UNFCCC and observes that the UNFCCC provides a general framework for addressing the problem of climate change caused by anthropogenic GHG emissions. In this connection, the UNFCCC addresses the full range of GHGs, with the exception of those already controlled by the Montreal Protocol.

The Court recalls that the "ultimate objective" of the UNFCCC, as set out in Article 2, is to achieve "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system", and to ensure that "[s]uch a level [is] achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner". In the Court's view, this provision sets the objective "in the light of which the other [t]reaty provisions are to be interpreted and applied". In pursuit of its "ultimate objective", Article 3 of the UNFCCC calls on the parties to take into account principles such as common but differentiated responsibilities and respective capabilities, the specific needs and special circumstances of developing country parties, sustainable development and co-operation, and precautionary measures in their implementation of the Framework Convention.

A key feature of the Framework Convention is the distinction it draws between "developed country Parties" and "developing country Parties", which are subject to differing obligations. The Framework Convention accomplishes this by providing for specific additional obligations on certain developed country parties and other parties listed in Annex I (hereinafter "Annex I parties").

(a) ***Mitigation obligations under the UNFCCC***

The main obligations under the Framework Convention concerning mitigation are to be found in Article 4. The Court observes that certain obligations under Article 4, paragraph 1, such as those to develop, update, publish and make available national inventories of anthropogenic GHG emissions and removals by sinks, and to formulate and publish national programmes, and the obligation to communicate information to the COP, are obligations of result. Other obligations under Article 4, paragraph 1, are obligations of conduct because they do not require parties to bring about a particular result but rather require parties to use their best efforts to achieve certain results relating to mitigation. The obligation to co-operate in the development and diffusion of technologies and practices that control, reduce or prevent anthropogenic emissions of greenhouse gases is an example of such an obligation. In the Court's view, the legal obligations under Article 4, paragraph 1, are interconnected obligations of conduct and result.

The Court then turns to Article 4, paragraph 2, of the Framework Convention, which sets out commitments for Annex I parties. It observes that the said provision sets forth a number of distinct but interrelated obligations. First, Article 4, paragraph 2, provides that each Annex I party "shall adopt" national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic GHG emissions and protecting and enhancing its GHG sinks and reservoirs. Second, Annex I parties are obliged to periodically communicate detailed information on such policies and measures, as well as on their resulting projected anthropogenic emissions with the aim of returning to their 1990 levels. Third, there is an obligation on Annex I parties to co-ordinate as appropriate with other such parties, relevant economic and administrative instruments developed to achieve the objective of the Convention. Finally, the Annex I parties are obliged to identify and periodically review their own policies and practices which lead to greater levels of anthropogenic GHG emissions.

Having identified the mitigation obligations of all parties (see Article 4, paragraph 1) and the mitigation obligations of Annex I parties (see Article 4, paragraph 2), the Court finds it necessary to recall that all obligations identified above are legally binding upon the parties to which they pertain, regardless of whether the obligation in question is one of result or one of conduct. It notes in this respect that the distinction between these two types of obligations is not necessarily a strict one and that both may result in the responsibility of a State for breach of the relevant obligation.

(b) ***Adaptation obligations under the UNFCCC***

The Court observes that adapting to the adverse effects of climate change is, along with mitigation, a major area of action for parties under the Framework Convention. Several provisions of the Framework Convention refer to obligations relating to adaptation. These provisions are legally binding in nature. The same is true of the obligation incumbent upon all parties to formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to facilitate adequate adaptation to climate change (Article 4, paragraph 1 *(b)*).

Article 4, paragraph 4, of the UNFCCC also provides that developed country parties and other parties included in Annex II, which comprise a subset of parties contained in Annex I, "shall" assist the developing country parties that are particularly vulnerable to the adverse effects of climate change in meeting the costs of adaptation to those adverse effects. This is a legally binding obligation on all parties that are listed in Annex II.

The Court further observes that funding, insurance and the transfer of technology are three adaptation measures identified in Article 4, paragraph 8. Article 4, paragraph 9, further requires that "Parties shall take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and transfer of technology". The Court considers that the phrases used in these provisions have the effect of giving parties some discretion in the implementation of their commitments under Article 4. However, this discretion does not detract from their character as legally binding obligations.

(c) ***Obligations of co-operation and assistance under the UNFCCC***

The Court considers that international co-operation is indispensable in the field of climate change, and that the customary duty to co-operate for the protection of the environment is reflected in several provisions of the climate change treaties, including the UNFCCC. The duty to co-operate is an obligation of conduct, the fulfilment of which is assessed against a standard of due diligence.

4. Obligations of States under the Kyoto Protocol

The Court then considers the Kyoto Protocol to the UNFCCC. It notes that the absence of a new commitment period after 2020 does not deprive that instrument of its legal effect and that its provisions may still serve as, *inter alia*, (i) interpretative aids for the identification of obligations under the climate change treaty framework and (ii) substantive provisions to assess the compliance of Annex I parties listed in Annex B of the Protocol with applicable emission reduction targets during the relevant commitment period. Thus, non-compliance with emission reduction commitments by a State may constitute an internationally wrongful act.

5. Obligations of States parties under the Paris Agreement

The Court turns next to the obligations of States parties to the Paris Agreement. As a general matter, the Court notes that while the Paris Agreement provides for limiting the global average temperature increase to well below 2°C above pre-industrial levels as a goal and 1.5°C as an additional effort, 1.5°C has become the scientifically based consensus target under the Paris Agreement. In the Court's view, the decisions of the CMAs express the agreement in substance between the parties regarding the interpretation of Article 2 of the Paris Agreement, and thus constitute subsequent agreements in relation to the interpretation of the Paris Agreement within the meaning of Article 31, paragraph 3 *(a)*, of the Vienna Convention on the Law of Treaties. Accordingly, the Court considers the 1.5°C threshold to be the parties' agreed primary temperature goal for limiting the global average temperature increase under the Paris Agreement. The Court adds

that this interpretation is consistent with Article 4, paragraph 1, of the Paris Agreement, which requires that mitigation measures be based on the "best available science".

The Court considers that the Framework Convention's overall objective constitutes the object and purpose of the Paris Agreement, with the temperature goal providing a means for achieving this object and purpose.

The Court notes that although there are several references to the principle of common but differentiated responsibilities and respective capabilities in the Paris Agreement, indicating the key role that the principle plays in the interpretation of its provisions, this principle has been formulated differently in the Agreement through the addition of the phrase "in the light of different national circumstances". In the view of the Court, the additional phrase does not change the core of the principle of common but differentiated responsibilities and respective capabilities; rather, it adds nuance to the principle by recognizing that the status of a State as developed or developing is not static but depends on an assessment of the current circumstances of the State concerned.

The Court also notes that the Paris Agreement contains several obligations of conduct and obligations of result which are mutually supportive. As observed earlier, with regard to obligations of conduct under the customary duty to prevent significant harm to the environment, parties are required to act with due diligence. Thus, the compliance of parties with their obligations of conduct under the Paris Agreement is assessed on the basis of whether the party in question exercised due diligence and employed best efforts by using all the means at its disposal in the performance of those obligations.

(a) ***Mitigation obligations under the Paris Agreement***

The Court recalls that mitigation involves human intervention to reduce emissions or enhance carbon sinks. It notes that the mitigation obligations of States parties under the Paris Agreement are set out in Article 4.

To achieve its objectives, the Paris Agreement establishes obligations concerning nationally determined contributions (hereinafter "NDCs") whereby parties outline and communicate their climate actions.

In accordance with Article 4, paragraph 2, of the Paris Agreement, each party must prepare, communicate and maintain successive NDCs that it intends to achieve. Parties are required to pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions. These two sentences in Article 4, paragraph 2, establish legally binding obligations upon States.

The Court observes that the obligation to prepare, communicate and maintain successive NDCs is procedural in nature and an obligation of result. Another obligation of result is found in Article 4, paragraph 9, of the Paris Agreement, which provides that each party must communicate a nationally determined contribution every five years. Similarly, Article 4, paragraph 13, provides that parties must account for their nationally determined contributions, and Article 4, paragraph 12, requires that parties register them.

Given these obligations of result, the failure to prepare, communicate and maintain successive NDCs, to account for them and to register them would constitute a breach of the above-mentioned obligations. The mere formal preparation, communication and maintenance of successive NDCs is not sufficient to comply with the obligations under Article 4.

The Court then turns to the question whether the content of the NDCs is left to the discretion of each party under the scheme of the Paris Agreement. The answer to this question depends on the interpretation of Article 4, which is to be undertaken in good faith, on the basis of the ordinary

meaning of the terms in that Article, in their context and in light of the object and purpose of the Paris Agreement. Paragraph 3 of that provision sets out certain expectations and standards that apply to parties in preparing their NDCs. First, that "[e]ach Party's successive nationally determined contribution will represent a progression" beyond that party's current NDCs means that a party's NDCs must become more demanding over time. Second, a party's NDCs must reflect "its highest possible ambition". In the Court's view, when interpreted in its context and in light of its object and purpose and the customary obligation to prevent significant harm to the environment, Article 4, paragraph 3, reveals that the content of a party's NDCs must, in fulfilment of its obligations under the Paris Agreement, be capable of making an adequate contribution to the achievement of the temperature goal.

The Court recalls that the standard of due diligence varies depending on a range of factors. In the current context, because of the seriousness of the threat posed by climate change, the standard of due diligence to be applied in preparing the NDCs is stringent. This means that each party has to do its utmost to ensure that the NDCs it puts forward represent its highest possible ambition in order to realize the objectives of the Agreement.

The obligation to prepare and communicate NDCs capable of realizing the objectives of the Agreement applies to all parties to the Paris Agreement. However, consistent with the varying character of due diligence and the principle of common but differentiated responsibilities and respective capabilities, the standard to be applied when assessing the NDCs of different parties will vary depending, *inter alia*, on historical contributions to cumulative GHG emissions, and the level of development and national circumstances of the party in question. This is confirmed by the Paris Agreement.

In light of the foregoing, the Court concludes that, rather than being entirely discretionary, NDCs must satisfy certain standards under the Paris Agreement. All NDCs prepared, communicated and maintained by parties under the Paris Agreement must, when taken together, be capable of realizing the objectives of the Agreement which are set out in Article 2.

The Court turns next to the obligation contained in the second sentence of Article 4, paragraph 2, which provides that "Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of" their successive NDCs. This obligation is substantive in nature and creates individual obligations for each party. Moreover, the obligation to pursue domestic mitigation measures is an obligation of conduct and not an obligation of result. Thus, compliance with that obligation is to be assessed on the basis of whether the parties exercised due diligence in their efforts and in deploying appropriate means to take domestic mitigation measures, including in relation to activities carried out by private actors. The Court considers that the standard of due diligence attaching to the obligation to pursue domestic mitigation measures is stringent on account of the fact that the best available science indicates that the risks and projected adverse impacts and related losses and damages from climate change escalate with every increment of global warming.

(b) ***Adaptation obligations under the Paris Agreement***

The Court finds that specific obligations pertaining to adaptation are contained in Article 7, paragraph 9, of the Paris Agreement, which provides that "[e]ach Party shall, as appropriate, engage in adaptation planning processes and the implementation of actions, including the development or enhancement of relevant plans, policies and/or contributions".

The Court considers that the fulfilment of adaptation obligations of parties is to be assessed against a standard of due diligence. It is therefore incumbent upon parties to enact appropriate measures (examples of which are provided in Article 7, paragraph 9) that are capable of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change. In this

connection, parties must use their best efforts, in line with the best available science, with a view to achieving the aforementioned objectives.

Finally, the Court observes that the adaptation obligations under the Paris Agreement complement the mitigation obligations in preventing and reducing the harmful consequences of climate change.

(c) ***Obligations of co-operation, including financial assistance, technology transfer and capacity-building under the Paris Agreement***

The Court notes that the Paris Agreement establishes obligations of co-operation with respect to specific issue areas, such as adaptation, and loss and damage. As observed earlier in respect of the obligation to co-operate under the UNFCCC, such obligations exist for States both under conventional international law, including Articles 7, 9 and 12 of the Paris Agreement, and customary international law. These coexisting obligations inform each other and, in the present instance, the Court considers that the customary duty to co-operate for the protection of the environment reinforces the treaty-based co-operation obligations under the Paris Agreement.

The Court notes that States are free to select the means of co-operating, as long as such means are consistent with the obligations of good faith and due diligence. The Court considers, however, that the principal forms of co-operation prescribed by the Paris Agreement are financial assistance, technology transfers and capacity-building.

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For all these reasons, the Court considers that the climate change treaties establish stringent obligations upon States to ensure the protection of the climate system and other parts of the environment from anthropogenic GHG emissions.

C. Obligations of States under customary international law relating to climate change (paras. 271-315)

1. Duty to prevent significant harm to the environment

The customary duty to prevent transboundary environmental harm, which requires States to "use all the means at [their] disposal in order to avoid activities which take place in [their] territory, or in any area under [their] jurisdiction, causing significant damage to the environment of another State", also applies to the climate system, which is an integral and vitally important part of the environment and which must be protected for present and future generations. The main elements of the obligation of prevention in the context of protection of the climate system are *(a)* the environmental harm to be prevented and *(b)* due diligence as the required standard of conduct.

(a) ***Risk of significant harm to the environment, including to the climate system***

For the duty to prevent to arise, there must be a risk of significant harm to the environment. Whether an activity constitutes a risk of significant harm depends on both the probability or foreseeability of the occurrence of harm and its severity or magnitude and should therefore be determined by, among other factors, an assessment of the risk and level of harm combined. The Court is of the view that a risk of significant harm may also be present in situations where significant harm

to the environment is caused by the cumulative effect of different acts undertaken by various States and by private actors subject to their respective jurisdiction or control.

The determination of "significant harm to the climate system and other parts of the environment" must take into account the best available science. The question whether any specific harm, or risk of harm, to a State constitutes a relevant adverse effect of climate change must be assessed *in concreto* in each individual situation.

Accordingly, the Court considers that the diffuse and multifaceted nature of various forms of conduct which contribute to anthropogenic climate change does not preclude the application of the duty to prevent significant harm to the climate system and other parts of the environment. This duty arises as a result of the general risk of significant harm to which States contribute, in markedly different ways, through the activities undertaken within their jurisdiction or control.

(b) ***Due diligence as the required standard of conduct***

The Court reaffirms that States must fulfil their duty to prevent significant harm to the environment by acting with due diligence. The following elements are particularly relevant when it comes to determining what due diligence requires from a State in a particular situation, including in the context of climate change: (i) appropriate rules and measures, which include, but are not limited to, regulatory mitigation mechanisms that are designed to achieve the deep, rapid and sustained reductions of GHG emissions that are necessary for the prevention of significant harm to the climate system; (ii) the availability of scientific and technological information and the need to acquire and analyse such information; (iii) current standards which may arise from binding and non-binding norms, but may also be reflected in certain decisions of the COPs to the climate change treaties and in recommended technical norms and practices, as appropriate; (iv) the principle of common but differentiated responsibilities and respective capabilities, it being understood that "the degree of care expected of a State with a well-developed economy and human and material resources and with highly evolved systems and structures of governance is different from States which are not so well placed" but which are nevertheless obliged to take all the means at their disposal to protect the climate system in accordance with their capabilities and available resources; (v) scientific information regarding the probability and the seriousness of possible harm, it being understood that States should also not refrain from or delay taking actions of prevention in the face of scientific uncertainty; (vi) the assessment by States of the risks and impact of proposed activities contributing to GHG emissions to be undertaken within their jurisdiction or control, on the basis of the best available science; and (vii) States' notification of and consultation in good faith with other States where planned activities within their jurisdiction or control create a risk of significant harm or significantly affect collective efforts to address harm to the climate system, such as the implementation of policy changes in relation to the exploitation of resources linked to GHG emissions.

2. Duty to co-operate

The Court recalls that the duty of States to co-operate for the protection of the environment has a customary character. It emphasizes the importance of co-operation in the context of a resource shared by a limited number of States. This observation applies even more to the climate system, which is a resource shared by all States. Co-operation between States is the very foundation of meaningful international efforts with respect to climate change.

The Court recognizes that the duty to co-operate leaves States some discretion in determining the means for regulating their GHG emissions. However, this discretion cannot serve as an excuse for States to refrain from co-operating with the required level of due diligence or to present their effort as an entirely voluntary contribution which cannot be subjected to scrutiny.

3. Relationship between obligations arising from treaties and from customary international law relating to climate change

The Court recalls that treaty rules and rules of customary international law, as norms belonging to two sources of international law, retain a separate existence. However, when several norms bear on a single issue they should, to the extent possible, be interpreted so as to give rise to a single set of compatible obligations.

The climate change treaties establish standards that may enable or facilitate the identification and application of the diligence that is due in specific instances. The Court also considers that the obligations arising from the climate change treaties, as interpreted herein, and State practice in implementing them inform the general customary obligations, just as the general customary obligations provide guidance for the interpretation of the climate change treaties.

As it is difficult to determine in the abstract the extent to which the climate change treaties and their implementation practice influence the proper understanding of the relevant customary obligations and their application, the Court considers that, at the present stage, compliance in full and in good faith by a State with the climate change treaties, as interpreted by the Court, suggests that this State substantially complies with the general customary duties to prevent significant environmental harm and to co-operate. This does not mean, however, that the customary obligations would be fulfilled simply by States complying with their obligations under the climate change treaties. While the treaties and customary international law inform each other, they establish independent obligations that do not necessarily overlap.

It follows from the above that the customary obligations of any State which is not a party to one or more of the climate change treaties at present find expression, at least in part, in the general practice of States which is in accordance with their obligations under the climate change treaties, as interpreted in the Opinion. Customary obligations are the same for all States and exist independently regardless of whether a State is a party to the climate change treaties. On this basis, the Court considers that it is possible that a non-party State which co-operates with the community of States parties to the three climate change treaties in a way that is equivalent to that of a State party, may, in certain instances, be considered to fulfil its customary obligations through practice that comports with the required conduct of States under the climate change treaties. However, if a non-party State does not co-operate in such a way, it has the full burden of demonstrating that its policies and practices are in conformity with its customary obligations.

D. Obligations of States under other environmental treaties (paras. 316-335)

The Court then considers the relevant obligations in the Ozone Layer Convention, the Montreal Protocol, the Biodiversity Convention and the Desertification Convention. It is of the view that the obligations in question contribute to the protection of the climate system and other parts of the environment.

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The Court considers that the examined environmental treaties, the climate change treaties and the relevant obligations under customary international law inform each other. States parties must therefore take their obligations under these environmental treaties into account when implementing their obligations under the climate change treaties and under customary international law, just as they

must take their obligations under the climate change treaties and under customary international law into account when implementing their obligations under these environmental treaties.

E. Obligations of States under the law of the sea and related issues (paras. 336-368)

1. Obligations of States under the United Nations Convention on the Law of the Sea

The Court is of the view that anthropogenic GHG emissions may be characterized as pollution of the marine environment within the meaning of UNCLOS. It therefore considers that Part XII of UNCLOS on the protection of the marine environment is applicable in the context of anthropogenic GHG emissions and is thus relevant to answering question *(a)* before the Court in the present advisory proceedings. On this basis, the Court considers the most relevant obligations of States under UNCLOS to ensure the protection of the climate system.

The Court observes that the obligation under Article 192 of UNCLOS consists of a positive obligation to take measures to protect and preserve the marine environment and a negative obligation not to degrade it.

It further notes that States parties have an obligation under Article 194, paragraph 1, of UNCLOS to take all necessary measures to reduce and control pollution, with the ultimate aim of preventing its occurrence altogether, although they are not required to ensure an immediate cessation of marine pollution caused by anthropogenic GHG emissions.

In the view of the Court, the standard of due diligence required of States in implementing all measures necessary to prevent, reduce and control marine pollution is stringent. These may include legislative measures, administrative procedures, and enforcement mechanisms necessary to regulate the activities concerned. The Court considers that what constitutes a "necessary measure" within the meaning of Article 194, paragraph 1, of UNCLOS should be assessed according to objective criteria, taking into account the best available science, international rules and standards relating to climate change, and the available means and capabilities of the States concerned.

With regard to Article 194, paragraph 2, of UNCLOS, the Court considers that the term "activities" referred to in that provision encompasses activities which produce GHG emissions. The standard of due diligence to be applied when complying with the obligation under that paragraph is stringent.

As concerns the obligation to co-operate under Article 197 of UNCLOS, the Court is of the view that it is an obligation of conduct which requires States to act with due diligence. It considers that this obligation is of a continuing nature and that it requires States parties, *inter alia*, to make ongoing efforts to formulate and elaborate rules, standards and recommended practices and procedures. Moreover, the Court agrees with the International Tribunal for the Law of the Sea that Article 197 does not exhaust the obligation to co-operate under Section 2 of Part XII of UNCLOS. In the view of the Court, States are also required to co-operate under Articles 200 and 201 of the Convention to promote studies, undertake research programmes, encourage the exchange of information and data, and to establish appropriate scientific criteria for regulations.

As for Article 206 of UNCLOS, the Court considers that, in the context of climate change and in view of the impact of anthropogenic GHG emissions on the marine environment, that provision requires States parties, as far as practicable, to conduct an environmental impact assessment (hereinafter "EIA") when there are reasonable grounds for believing that planned activities under their jurisdiction or control which emit GHGs may cause substantial pollution or significant and harmful changes to the marine environment. This obligation also extends to activities with an impact on areas beyond national jurisdiction.

The Court considers that UNCLOS, the climate change treaties and other relevant environmental treaties, as well as the relevant obligations under customary international law, inform each other. States parties must therefore take their obligations under UNCLOS into account when implementing their obligations under the climate change treaties and other relevant environmental treaties and under customary international law, just as they must take their obligations under the climate change treaties and other relevant environmental treaties and under customary international law into account when implementing their obligations under UNCLOS.

2. Obligations of States in relation to sea level rise and related issues

The Court notes that many participants voiced strong concerns about sea level rise and its implications, especially for the stability of maritime zones. They contend that sea level rise should not have the effect of diminishing the maritime entitlements of States. They argue that existing baselines, maritime entitlements, maritime delimitations and statehood should be preserved, notwithstanding the physical effects of sea level rise, including coastal recession. They further contend that the complete submergence of their territory should not deprive them of their maritime entitlements.

The Court considers that the provisions of UNCLOS do not require States parties, in the context of physical changes resulting from climate-change related sea level rise, to update their charts or lists of geographical co-ordinates that show the baselines and outer limit lines of their maritime zones once they have been duly established in conformity with the Convention. For this reason, States parties to UNCLOS are under no obligation to update such charts or lists of geographical co-ordinates.

The Court also notes that several participants argued that sea level rise also poses a significant threat to the territorial integrity and thus to the very statehood of small island States. In the view of the Court, once a State is established, the disappearance of one of its constituent elements would not necessarily entail the loss of its statehood.

3. Other relevant instruments

The Court recalls that for the purposes of the present Advisory Opinion, it is not called upon to address all treaties that may be relevant for the protection of the climate system. In this regard, while not seeking to draw up an exhaustive list of treaties relevant to climate change, the Court emphasizes that its examination of the obligations of States under UNCLOS is without prejudice to the applicability of other sources of obligations, be they universal, regional or bilateral, which may apply to the States parties to relevant instruments.

F. Obligations of States under international human rights law (paras. 369-404)

1. Adverse effects of climate change on the enjoyment of human rights

The Court is thus of the view that the adverse effects of climate change, including, *inter alia*, the impact on the health and livelihoods of individuals through events such as sea level rise, drought, desertification and natural disasters, may significantly impair the enjoyment of certain human rights, in particular, the right to life, the right to health, the right to an adequate standard of living, which encompasses access to food, water and housing, the right to privacy, family and home, and the rights of women, children and indigenous peoples.

2. Right to a clean, healthy and sustainable environment

The Court is of the view that a clean, healthy and sustainable environment is a precondition for the enjoyment of many human rights, such as the right to life, the right to health and the right to an adequate standard of living, including access to water, food and housing. The right to a clean, healthy and sustainable environment results from the interdependence between human rights and the protection of the environment. Consequently, in so far as States parties to human rights treaties are required to guarantee the effective enjoyment of such rights, it is difficult to see how these obligations can be fulfilled without at the same time ensuring the protection of the right to a clean, healthy and sustainable environment as a human right. The Court thus concludes that, under international law, the human right to a clean, healthy and sustainable environment is essential for the enjoyment of other human rights.

3. Territorial scope of human rights treaties

The Court considers that the question of the territorial scope of universal human rights treaties must be addressed in light of each instrument's specific provisions. It recalls that it has previously recognized the applicability of human rights treaties when a State exercises jurisdiction outside its territory.

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Taking into account the adverse effects of climate change on the enjoyment of human rights, the Court considers that the full enjoyment of human rights cannot be ensured without the protection of the climate system and other parts of the environment. In order to guarantee the effective enjoyment of human rights, States must take measures to protect the climate system and other parts of the environment. These measures may include, *inter alia*, taking mitigation and adaptation measures, with due account given to the protection of human rights, the adoption of standards and legislation, and the regulation of the activities of private actors. Under international human rights law, States are required to take necessary measures in this regard.

The Court is of the view that international human rights law, the climate change treaties and other relevant environmental treaties, as well as the relevant obligations under customary international law, inform each other. States must therefore take their obligations under international human rights law into account when implementing their obligations under the climate change treaties and other relevant environmental treaties and under customary international law, just as they must take their obligations under the climate change treaties and other relevant environmental treaties and under customary international law into account when implementing their human rights obligations.

V. QUESTION *(B)* PUT TO THE COURT: LEGAL CONSEQUENCES ARISING FROM STATES' ACTS AND OMISSIONS THAT CAUSE SIGNIFICANT HARM TO THE CLIMATE SYSTEM AND OTHER PARTS OF THE ENVIRONMENT (PARAS. 405-455)

The Court then turns to question *(b)*. As observed earlier, the Court considers that this question concerns the legal consequences arising for States that have breached any of the obligations identified in relation to question *(a)*. As the Court has noted above, the term "legal consequences" in question *(b)* is to be understood as referring to the legal consequences arising from internationally wrongful acts of States, which are to be ascertained on the basis of the primary rules and the customary rules on State responsibility.

A. Applicable law (paras. 407-420)

The Court considers that the obligations to which question *(b)* applies are the obligations provided for under the various treaties, in particular the climate change treaties, and rules of customary international law considered under question *(a)*. The rules on State responsibility under customary international law are also applicable to the determination of legal consequences for States that, by their actions or omissions, have breached those obligations.

With regard to primary obligations under the climate change treaty framework, the Court observes that in the absence of special rules to the contrary, the responsibility of a party may be engaged under the rules on State responsibility if there is any breach of the obligations identified in question *(a)*.

With regard to obligations under customary international law, the Court observes that the most significant primary obligation for States in relation to climate change is the obligation to prevent significant harm to the climate system and other parts of the environment, which applies to all States, including those that are not parties to one or more of the climate change treaties. Under this obligation, as well as under other obligations of conduct identified under question *(a)*, a State does not incur responsibility simply because the desired result is not achieved; rather, responsibility is incurred if the State fails to take all measures which were within its power to prevent the significant harm. In this connection, the notion of due diligence, which calls for an assessment *in concreto*, is the relevant standard for determining compliance. Thus, a State that does not exercise due diligence in the performance of its primary obligation to prevent significant harm to the environment, including to the climate system, commits an internationally wrongful act entailing its responsibility.

With regard to the question of applicability of the rules on State responsibility under question *(b)*, the Court notes that those rules "do not vary with the nature of the wrongful act in question in the absence of a clearly expressed *lex specialis*". It follows that the rules on State responsibility under general international law do not apply where and to the extent that the conditions for the existence of an internationally wrongful act or the content or implementation of the international responsibility of a State are governed by special rules of international law. In order for the *lex specialis* maxim to apply, there must be "some actual inconsistency . . . or else a discernible intention that one provision is to exclude the other". Whether States derogated from the general rules on State responsibility by agreeing on special rules is a matter of interpretation for each supposedly special régime. Therefore, the Court considers that a discernible intention to establish *lex specialis*, varying or excluding the application of the general rules on State responsibility, must be found in the climate change treaty framework itself.

Participants submitted two main arguments for the proposition that the climate change treaty framework constitutes *lex specialis* in respect of State responsibility. The first concerns the procedural mechanisms contained in Articles 8 and 15 of the Paris Agreement, which relate to "loss and damage" and "compliance", respectively. The second concerns Article 14 of the UNFCCC, which establishes a dispute settlement mechanism under that treaty and which has been incorporated into both the Kyoto Protocol (Article 19) and the Paris Agreement (Article 24). The Court examines each of these mechanisms in order to ascertain whether they constitute *lex specialis*.

The Court observes that Article 8 of the Paris Agreement encourages parties to adopt a co-operative and facilitative approach with respect to loss and damage associated with the adverse effects of climate change, including recourse to the mechanism established under that provision. The provision does not, however, address issues of liability or compensation of parties for such loss and damage, since the expression "as appropriate, on a cooperative and facilitative basis" emphasizes co-operation rather than compensation or liability. Accordingly, the Court does not find in Article 8 of the Paris Agreement any clearly expressed *lex specialis* that would exclude the application of the general rules on State responsibility.

Turning to Article 15 of the Paris Agreement, the Court observes that paragraph 1 of that Article establishes the Paris Agreement Implementation and Compliance Committee (PAICC), which has the power to facilitate implementation of and promote compliance with the Agreement. However, the Court observes that this compliance mechanism does not have the power to settle disputes or provide for remedies, and that it therefore does not have the capacity to determine State responsibility. Accordingly, the Court does not find in Article 15 of the Paris Agreement any clearly expressed *lex specialis* that would exclude the application of the general rules on State responsibility.

The Court, therefore, finds that the text, context, and object and purpose of the climate change treaties do not support the proposition that the parties intended to exclude the general rules on State responsibility.

B. Determination of State responsibility in the climate change context (paras. 421-443)

The Court recalls that climate change is a highly complex and multifaceted phenomenon involving possible responsibilities for multiple States over long periods of time. The unprecedented nature and scale of harm resulting from climate change give rise to particular issues in relation to the application of the customary rules on State responsibility. That is so because concentrations of GHG emissions are not produced by a single activity or group of activities identifiable or associated with a certain State or States. Moreover, it is the collective and aggregate effects of GHGs, anthropogenic as well as from natural sources, that cause damage to the climate system. Among the issues raised by the special features of climate change to the application of the customary rules on State responsibility are questions relating to attribution and causation, because, under the rules on State responsibility, only an action or omission attributable to a State can give rise to international responsibility. Furthermore, in cases where reparation is claimed, it must be shown that the damage for which reparation is claimed has been factually and legally caused by a State. The Court also observes that the issue of the temporal scope of the international obligations of States pertaining to the protection of the climate system from anthropogenic GHG emissions, and the related issue of breach of those obligations, comprise elements of an *in concreto* assessment for the determination of State responsibility, which is beyond the scope of this Advisory Opinion.

1. Questions relating to attribution

In considering the alleged difficulties in attributing actions or omissions to a State, the Court emphasizes at the outset that attribution is to be based on criteria determined by international law. In the Court's view, the well-established rule of international law that the conduct of any organ of a State must be regarded as an act of that State is applicable in the context of climate change. Failure of a State to take appropriate action to protect the climate system from GHG emissions — including through fossil fuel production, fossil fuel consumption, the granting of fossil fuel exploration licences or the provision of fossil fuel subsidies — may constitute an internationally wrongful act which is attributable to that State. The Court also emphasizes that the internationally wrongful act in question is not the emission of GHGs per se, but the breach of conventional and customary obligations identified under question *(a)* pertaining to the protection of the climate system from significant harm resulting from anthropogenic emissions of such gases.

In relation to private actors, the Court observes that the obligations it has identified under question *(a)* include the obligation of States to regulate the activities of private actors as a matter of due diligence. Therefore, attribution in this context involves attaching to a State its own actions or omissions that constitute a failure to exercise regulatory due diligence. In such circumstances, the question of attributing the conduct of private actors to a State does not arise. The legal standard to assess compliance with the obligation to regulate, as well as the nature of the actions or omissions that lead to attribution, has been set out by the Court in several cases. Thus, a State may be responsible

where, for example, it has failed to exercise due diligence by not taking the necessary regulatory and legislative measures to limit the quantity of emissions caused by private actors under its jurisdiction.

The Court further notes that some participants submitted that it is difficult to invoke responsibility in the context of climate change given that the wrongful conduct is cumulative in nature, involving different States over a period of time, and involving a plurality of States that cause injury to a plurality of injured States. In this respect, the Court observes that while climate change is caused by cumulative GHG emissions, it is scientifically possible to determine each State's total contribution to global emissions, taking into account both historical and current emissions.

The Court acknowledges that the fact that multiple States have contributed to climate change may indeed increase the difficulty of determining whether and to what extent an individual State's breach of an obligation identified in question *(a)* has caused significant harm to the climate system. However, the Court considers that, in principle, the rules on State responsibility under customary international law are capable of addressing a situation in which there exists a plurality of injured or responsible States.

Therefore, in the climate change context, the Court considers that each injured State may separately invoke the responsibility of every State which has committed an internationally wrongful act resulting in damage to the climate system and other parts of the environment. And where several States are responsible for the same internationally wrongful act, the responsibility of each State may be invoked in relation to that act.

2. Questions relating to causation

The Court begins by observing that causation of damage is not a requirement for the determination of responsibility as such. Causation or causality is a legal concept that plays a role in determining reparation. Since reparation implies the existence of damage, causation must be established between the wrongful act of a State — or group of States — and particular damage suffered by the injured State or, in the case of a breach of obligations under international human rights law, by the injured individuals.

Causation of harm was raised by many participants, with some arguing that causation is impossible to establish in the present context due to the diffuse nature of climate change. Other participants submitted that causation between a wrongful act and damage should be presumed in the context of climate change. The Court finds neither of these positions convincing. As it has previously observed, the fact that the damage was the result of concurrent causes is not sufficient to exempt a State from any obligation to make reparation. At the same time, causation cannot be presumed and is a necessary element for reparation to be accorded.

The existing legal standard for establishing causation, which has been developed in the jurisprudence of the Court, is capable of being applied to the establishment of causation between the internationally wrongful act of non-compliance with States' obligations to protect the climate system from harm caused by anthropogenic GHG emissions and the damage suffered by States as a result of such a wrongful act. This standard requires the existence of a sufficiently direct and certain causal nexus between the wrongful act and the injury suffered by the applicant. The Court is of the view that the standard of "a sufficiently direct and certain causal nexus" between an alleged wrongful action or omission and the alleged damage is flexible enough to address the challenges arising in respect of the phenomenon of climate change.

In terms of the operation of this legal standard in the climate change context, the Court observes that causation involves two distinct elements. First, whether a given climatic event or trend can be attributed to anthropogenic climate change; and second, to what extent damage caused by climate change can be attributed to a particular State or group of States. While the second element

must be established *in concreto* in respect of specific claims brought by States in respect of damage, in many cases the first element may be addressed by recourse to science.

In light of the foregoing, the Court concludes that while the causal link between the wrongful actions or omissions of a State and the harm arising from climate change is more tenuous than in the case of local sources of pollution, this does not mean that the identification of a causal link is impossible in the climate change context; it merely means that the causal link must be established in each case through an *in concreto* assessment while taking into account the aforementioned elements outlined by the Court.

3. *Erga omnes* character of the underlying obligations

The Court now turns to the question whether the character of certain obligations identified under question *(a)* results in any special legal consequences for States.

In the present context, the Court considers that all States have a common interest in the protection of global environmental commons like the atmosphere and the high seas. Consequently, States' obligations pertaining to the protection of the climate system and other parts of the environment from anthropogenic GHG emissions, in particular the obligation to prevent significant transboundary harm under customary international law, are obligations *erga omnes*. In the treaty context, the Court recalls that the UNFCCC and Paris Agreement acknowledge that climate change is "a common concern of humankind", requiring "a global response". They seek to protect the essential interest of all States in the safeguarding of the climate system, which benefits the international community as a whole. As such, the Court considers that the obligations of States under these treaties are obligations *erga omnes partes*. As a result, all States parties have a legal interest in the protection of the main mitigation obligations set forth in the climate change treaties and may invoke the responsibility of other States for failing to fulfil them. The Court adds that responsibility for breaches of obligations *erga omnes*, such as climate change mitigation obligations, may be invoked by any State when such obligations arise under customary international law. When such obligations arise under the climate change treaties, all parties to the treaty may invoke such responsibility, since every party is deemed to have a legal interest in the protection of these obligations.

C. Legal consequences arising from wrongful acts (paras. 444-455)

The Court recalls that it is well established that every internationally wrongful act of a State entails the international responsibility of that State. In the present context, the internationally wrongful act may range from breaches of treaty obligations, such as the procedural obligation of a State to prepare, communicate or implement NDCs under Article 4 of the Paris Agreement, to breaches of obligations under customary international law, such as the failure of a State to regulate emissions of GHGs under its duty to exercise due diligence to prevent significant harm, or its failure to conduct EIAs.

The Court cannot, in the context of these advisory proceedings, specify precisely what consequences are entailed by the commission of an internationally wrongful act of breaching obligations to protect the climate system from the anthropogenic GHG emissions, since such consequences depend on the specific breach in question and on the nature of the particular harm. As a general observation, the Court notes that breaches of States' obligations under question *(a)* may give rise to the entire panoply of legal consequences provided for under the law of State responsibility. These include obligations of cessation and non-repetition, which are consequences that apply irrespective of the existence of harm, as well as the consequences requiring full reparation, including restitution, compensation and/or satisfaction. The Court also notes that breaches of States'

obligations do not affect the continued duty of the responsible State to perform the obligation breached.

1. Duty of performance

The breach by a State of its international obligations does not extinguish its underlying duty of performance. States have a continuing duty to perform their obligations despite their breaches thereof.

2. Duty of cessation and guarantees of non-repetition

Under customary international law, a State responsible for an internationally wrongful act is under an obligation to cease that act if it is continuing and if the breached obligation is still in force. In this context, the Court is of the view that the obligation to put an end to the wrongful act may require a State to revoke all administrative, legislative and other measures that constitute an internationally wrongful act of that State. The duty of cessation may also require States to employ all means at their disposal to reduce their GHG emissions and take other measures in a manner, and to the extent, that ensures compliance with their obligations. Additionally, in appropriate circumstances, a responsible State could be required to offer appropriate assurances and guarantees of non-repetition.

3. Duty to make reparation

Article 31 of the ILC Articles on State Responsibility provides that a responsible State is under an obligation to make full reparation for the damage caused by the internationally wrongful act. Reparation must "wipe out all the consequences of the illegal act and reestablish the situation which would, in all probability, have existed if that act had not been committed". "[F]ull reparation" can be achieved by restitution, compensation, satisfaction or a combination thereof. The appropriate nature and quantum of reparations cannot be assessed in the abstract and depends on the circumstances of a particular case.

The Court observes that the remedy of restitution, which involves the re-establishment of the situation that existed before the wrongful act was committed, may prove difficult or unfeasible in the case of environmental harm, since such harm is often not easily reversible. Nonetheless, the Court considers that, in the circumstances of climate change caused by emissions of GHGs, restitution may take the form of reconstructing damaged or destroyed infrastructure, and restoring ecosystems and biodiversity. Whether or not these special forms of restitution are appropriate as reparation for damage suffered by States in relation to climate change is to be determined on a case by-case basis. Such determinations cannot be made in the abstract.

In the event that restitution should prove to be materially impossible, responsible States have an obligation to compensate. The Court is not requested in this Advisory Opinion to indicate reparation for specific States or to identify such States individually, nor to proceed to the quantification of compensation to be paid by specific States or a plurality of States. However, the Court considers that it is within the scope of this Opinion, in the context of setting out the applicable legal framework for State responsibility, to consider whether compensation could be owed for significant harm caused by climate change, if a sufficiently direct and certain causal nexus can be shown between the wrongful acts of one or more States and the resulting harm.

Where there is uncertainty with respect to the exact extent of the damage caused, compensation in the form of a global sum, within the range of possibilities indicated by the evidence and taking into account equitable considerations, may be awarded on an exceptional basis. In the climate change context, reparations in the form of compensation may be difficult to calculate, as there is usually a degree of uncertainty with respect to the exact extent of the damage caused.

Whether satisfaction is warranted for a violation by a State or States of obligations regarding the emission of GHGs, and what form that satisfaction could take, will depend on the nature and circumstances of the breach. It is possible for satisfaction to take the form of expressions of regret, formal apologies, public acknowledgments or statements, or education of the society about climate change.

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Before concluding, the Court recalls that it has been suggested that these advisory proceedings are unlike any that have previously come before the Court. At the same time, as the Court concluded earlier, the questions put to it by the General Assembly are legal ones, and the Court, as a court of law, can do no more than address the questions put to it through and within the limits of its judicial function; this is the Court's assigned role in the international legal order. However, the questions posed by the General Assembly represent more than a legal problem: they concern an existential problem of planetary proportions that imperils all forms of life and the very health of our planet. International law, whose authority has been invoked by the General Assembly, has an important but ultimately limited role in resolving this problem. A complete solution to this daunting, and self-inflicted, problem requires the contribution of all fields of human knowledge, whether law, science, economics or any other. Above all, a lasting and satisfactory solution requires human will and wisdom — at the individual, social and political levels — to change our habits, comforts and current way of life in order to secure a future for ourselves and those who are yet to come. Through this Opinion, the Court participates in the activities of the United Nations and the international community represented in that body, with the hope that its conclusions will allow the law to inform and guide social and political action to address the ongoing climate crisis.

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The full text of the operative part (para. 457) of the Advisory Opinion reads as follows:

For these reasons,

THE COURT,

(1) Unanimously,

Finds that it has jurisdiction to give the advisory opinion requested;

(2) Unanimously,

Decides to comply with the request for an advisory opinion;

(3) As regards question *(a)* put by the General Assembly:

A. Unanimously,

Is of the opinion that the climate change treaties set forth binding obligations for States parties to ensure the protection of the climate system and other parts of the environment from anthropogenic greenhouse gas emissions. These obligations include the following:

(a) States parties to the United Nations Framework Convention on Climate Change have an obligation to adopt measures with a view to contributing to the mitigation of greenhouse gas emissions and adapting to climate change;

(b) States parties listed in Annex I to the United Nations Framework Convention on Climate Change have additional obligations to take the lead in combating climate change by limiting their greenhouse gas emissions and enhancing their greenhouse gas sinks and reservoirs;

(c) States parties to the United Nations Framework Convention on Climate Change have a duty to co-operate with each other in order to achieve the underlying objective of the Convention;

(d) States parties to the Kyoto Protocol must comply with applicable provisions of the Protocol;

(e) States parties to the Paris Agreement have an obligation to act with due diligence in taking measures in accordance with their common but differentiated responsibilities and respective capabilities capable of making an adequate contribution to achieving the temperature goal set out in the Agreement;

(f) States parties to the Paris Agreement have an obligation to prepare, communicate and maintain successive and progressive nationally determined contributions which, *inter alia*, when taken together, are capable of achieving the temperature goal of limiting global warming to 1.5°C above pre-industrial levels;

(g) States parties to the Paris Agreement have an obligation to pursue measures which are capable of achieving the objectives set out in their successive nationally determined contributions; and

(h) States parties to the Paris Agreement have obligations of adaptation and co-operation, including through technology and financial transfers, which must be performed in good faith;

B. Unanimously,

Is of the opinion that customary international law sets forth obligations for States to ensure the protection of the climate system and other parts of the environment from anthropogenic greenhouse gas emissions. These obligations include the following:

(a) States have a duty to prevent significant harm to the environment by acting with due diligence and to use all means at their disposal to prevent activities carried out within their jurisdiction or control from causing significant harm to the climate system and other parts of the environment, in accordance with their common but differentiated responsibilities and respective capabilities;

(b) States have a duty to co-operate with each other in good faith to prevent significant harm to the climate system and other parts of the environment, which requires sustained and continuous forms of co-operation by States when taking measures to prevent such harm;

C. Unanimously,

Is of the opinion that States parties to the Vienna Convention for the Protection of the Ozone Layer and to the Montreal Protocol on Substances that Deplete the Ozone Layer and its Kigali Amendment, the Convention on Biological Diversity and the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, have obligations under these treaties to ensure the protection of the climate system and other parts of the environment from anthropogenic greenhouse gas emissions;

D. Unanimously,

Is of the opinion that States parties to the United Nations Convention on the Law of the Sea have an obligation to adopt measures to protect and preserve the marine environment, including from the adverse effects of climate change and to co-operate in good faith;

E. Unanimously,

Is of the opinion that States have obligations under international human rights law to respect and ensure the effective enjoyment of human rights by taking necessary measures to protect the climate system and other parts of the environment;

(4) As regards question *(b)* put by the General Assembly:

Unanimously,

Is of the opinion that a breach by a State of any obligations identified in response to question *(a)* constitutes an internationally wrongful act entailing the responsibility of that State. The responsible State is under a continuing duty to perform the obligation breached. The legal consequences resulting from the commission of an internationally wrongful act may include the obligations of:

(a) cessation of the wrongful actions or omissions, if they are continuing;

(b) providing assurances and guarantees of non-repetition of wrongful actions or omissions, if circumstances so require; and

(c) full reparation to injured States in the form of restitution, compensation and satisfaction, provided that the general conditions of the law of State responsibility are met, including that a sufficiently direct and certain causal nexus can be shown between the wrongful act and injury.

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Vice-President SEBUTINDE appends a separate opinion to the Advisory Opinion of the Court; Judge TOMKA appends a declaration to the Advisory Opinion of the Court; Judges YUSUF, XUE and BHANDARI append separate opinions to the Advisory Opinion of the Court; Judges BHANDARI and CLEVELAND append a joint declaration to the Advisory Opinion of the Court; Judge NOLTE appends a declaration to the Advisory Opinion of the Court; Judge CHARLESWORTH appends a separate opinion to the Advisory Opinion of the Court; Judges CHARLESWORTH, BRANT, CLEVELAND and AURESCU append a joint declaration to the Advisory Opinion of the Court; Judge CLEVELAND

appends a declaration to the Advisory Opinion of the Court; Judge AURESCU appends a separate opinion to the Advisory Opinion of the Court; Judge TLADI appends a declaration to the Advisory Opinion of the Court.

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Separate opinion of Vice-President Sebutinde

Vice-President Sebutinde is of the view that the Advisory Opinion does not go far enough in interpreting the full scope of the two questions put to it by the General Assembly and that consequently, the answers to questions *(a)* and *(b)* are not comprehensive or succinct. In answering questions *(a)* and *(b)* the Advisory Opinion glosses over the legal implications of climate change for present and future generations, and for least developed and small island States, which due to their geographical circumstances and level of development are injured or specially affected by or particularly vulnerable to the adverse effects of climate change. Climate justice requires a recognition that there is an imbalance between the small group of major polluters and most States, including least developed and small island States, whose greenhouse gas (GHG) emissions are negligible. States have an obligation to preserve the climate system and to ensure a sustainable and equitable world for communities whose habitat and way of life is adversely affected by the effects of climate change and for current and future inhabitants. In her opinion, the Court takes an overly cautious approach regarding the adverse effects of climate-related sea level rise on statehood and the right to self-determination. The principle of common but differentiated responsibilities and respective capabilities (CBDR-RC), which aims to ensure fairness in how the burden of climate action is shared between developed and developing countries, should have been explored more comprehensively in the Advisory Opinion. Matters relating to the determination of State responsibility such as attribution and causation should be reserved for contentious proceedings and are beyond the scope of the General Assembly's request.

Declaration of Judge Tomka

In his declaration, Judge Tomka expresses agreement with the Court's overall conclusions on the global challenge posed by climate change and the importance of international co-operation through treaties such as the UNFCCC and the Paris Agreement. However, he raises concerns about the Court's treatment of customary international law, particularly regarding the continuity of statehood in the context of sea-level rise.

Judge Tomka notes that the Court's brief statement suggesting that the disappearance of a State's territory would not necessarily entail the loss of statehood stands in some tension with the customary criteria of statehood, which have traditionally required a defined territory. While acknowledging the growing number of States — particularly small island developing States — that have advanced arguments in favour of continued statehood in such circumstances, he cautions that these developments likely do not yet amount to a settled rule of customary international law. He notes emerging legal views and practice, and recognizes the normative momentum behind these efforts. In his view, the Court's brief and unelaborated pronouncement was premature and unnecessary in light of this ongoing dialogue; the matter is properly one for States to address, acting in a co-operative spirit. Given that the General Assembly had not explicitly requested an opinion on statehood, he concludes that the Court should have refrained from addressing the issue. Once however the Court had decided, *sua sponte*, to address the matter, it should have provided a more thorough and reasoned analysis.

Separate opinion of Judge Yusuf

1. Judge Yusuf expresses his disappointment with what he considers to be an excessively formalistic approach of the Court in the formulation of the Advisory Opinion. He is of the view that the questions of the General Assembly, particularly question *(b)*, deserved more concrete and tangible replies based on the realities of climate change, as well as the fundamental concerns and objectives underlying the request.

2. For Judge Yusuf, the Court misinterpreted question *(b)* and avoided engaging with the distinction it made between those States that, through their actions and omissions, have caused significant harm to the climate system and other States, including small island developing States, that are injured or specially impacted by the adverse effects of climate change.

3. In Judge Yusuf's opinion, the Court, by avoiding to address in legal terms, the disparities identified by science in the contributions of States to greenhouse gas (GHG) emissions and in the injuries suffered by those States specially affected by climate change, failed to rise to the occasion and to provide the international community with the legal tools necessary for combating climate change in an equitable manner for all States. The profound disparities between States in their historical and current contributions to climate change are not only based on scientific results but also find clear recognition in contemporary international law through the concept of common but differentiated responsibilities.

4. Judge Yusuf regrets the fact that the Court missed an opportunity to clarify for all States and, in particular, for those who have most suffered from the adverse effects of climate change, in a clear and tangible manner, the legal consequences of the failure of gross GHG-emitting States to take appropriate action to protect the climate system from such emissions. By adopting an excessively formalistic approach, the Court has opted for a proposition reminiscent of the famous remarks of Anatole France that "[t]he law, in its majestic equality, forbids the rich as well as the poor to sleep under bridges, to beg in the streets, and to steal bread".

5. Judge Yusuf considers that the Court should have analysed the possibility for small island developing States and the least developed countries, as injured and specially affected States, to invoke Article 42 of the International Law Commission Articles on Responsibility of States for Internationally Wrongful Acts for the breach by gross GHG-emitting States of their international legal obligations in failing, for example, to regulate adequately fossil fuel production, fossil fuel consumption and the granting of subsidies or exploration licences for fossil fuels.

6. Lastly, Judge Yusuf addresses the failure of the Court to take into account the régime of international liability for injuries arising out of conduct not prohibited by international law, which plays a complementary role when considering legal consequences for States' acts or omissions in relation to climate change. In his view, it was incumbent upon the Court to recognize the insufficiency of the régime of State responsibility for internationally wrongful acts, as was noted by the International Law Commission and in the Stockholm Declaration, and to leave the door open rather than closed for the development of international law in addressing this critical question of protection of the climate system and other parts of the environment, and in safeguarding the interests of those States and peoples which are particularly affected by climate change.

Separate opinion of Judge Xue

1. In reply to the questions put to it by the General Assembly, Judge Xue considers that the Court should have seized this opportunity to give a full account of the imperatives of the underlying principles set forth in Article 3 of the United Nations Framework Convention on Climate Change (UNFCCC) in the global response to climate change, in particular, the principle of sustainable development and the principle of common but differentiated responsibilities and respective capabilities (hereinafter "the principle of common but differentiated responsibilities"). She regrets that the Court only gives them a nominal effect without analysing in which way these principles guide the interpretation and application of the climate change treaties.

2. Judge Xue notes that it is generally agreed among States that the International Panel on Climate Change (IPCC) reports provide the best available science on the causes, nature and consequences of climate change. The IPCC reports confirm that human influence on the climate system is now an established fact.

3. Judge Xue recaps some scientific findings presented by the IPCC. It is now scientifically proven that anthropogenic greenhouse gas emissions (hereinafter "GHG emissions"), mainly caused by fossil fuel combustion, industrial processes, unsustainable agricultural practice and other land uses, and deforestation, have led to global warming, which has significant impacts on humankind and the planet. Their cumulative and adverse effects may have existed for decades or even centuries in the climate system. Moreover, the level of GHG emissions varies greatly among regions, corresponding to the level of industrial development. Developed countries have contributed significantly to the total amount of global GHG emissions, while the contributions from least developed countries and small island developing States are minimal. However, the effects and impacts of climate change are experienced in markedly different ways among them. International co-operation, including financial assistance and transfer of technology from developed countries, is essential for the developing countries to tackle the threat of climate change in the context of their socio-economic development and efforts towards poverty eradication.

4. With regard to the role of the principle of sustainable development in the global response to climate change, Judge Xue is of the view that reduction of GHG emissions for the protection of climate system essentially concerns the question of development. To reduce GHG emissions, States need to shift their reliance on fossil fuels, reconsider their approach to industrialization, change their unsustainable agricultural practice, and readjust their consumption patterns. The impact of such shifts and changes is profound and far-reaching across all sectors of the economy and social development. Judge Xue notes that the interdependence between the vulnerability of human populations and that of ecosystems, underscored by the IPCC, in a way exacerbates the conflicting interests between development and environment in the context of climate change, as human rights protection hinges on both dimensions. Therefore, to promote human rights, socio-economic development must be pursued on a sustainable basis without causing significant damage to the environment.

5. Judge Xue recalls that serious considerations of the relationship between environment and development at the international level took place at the first World Conference on the Human Environment held in Stockholm in 1972. The Stockholm Declaration adopted 26 principles, which recognized, among others, that economic and social development is essential for ensuring a favourable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life (Principle 8). Principle 21, while taking care of the concern of the developing countries to maintain their sovereignty over their natural resources for national development, evolves to be one of the most important principles of international environmental law — the principle of prevention of transboundary harm to the environment. In the ensuing years, numerous important documents on environment and development were adopted, among which the report of the World Commission on Environment and Development (commonly known as "Brundtland Commission Report") entitled "Our Common Future" is perhaps the most influential one. In proposing long-term environmental strategies for achieving sustainable development, the report suggested that States should not focus merely on the environmental problems in question, but also on their relations with various socio-economic areas, such as food security, population, energy, industry, urban development and biodiversity, thus bringing diverse dimensions into the environmental strategies.

6. Judge Xue notes that the 1992 Rio Conference on Environment and Development provides a turning point for the principle of sustainable development in international law. The UNFCCC, in a

legal form, fully reflects the integral approach suggested by the Brundtland Commission Report for the global action against the adverse effects of climate change. According to Article 3 of the UNFCCC, global action against climate change must reflect both intergenerational equity as well as intragenerational equity. For intergenerational equity, it means that the current development model must shift to one that meets the needs of the present generation without compromising the ability of future generations to meet their own. That is to say, States parties, in taking mitigation measures, should be guided by the principle of sustainable development. For intragenerational equity, Judge Xue points out that one of the crucial issues for the world development is the persistent gap between developed and developing States. Climate change has aggravated the inequality between the rich and the poor and severely constrained the ability of the developing countries, in particular least developed countries and small island developing States, to pursue sustainable development goals and to eradicate poverty.

7. Referring to Article 3, paragraph 4 of the UNFCCC, Judge Xue states that this provision reaffirms the right to development, but such right must be exercised on a sustainable basis. In this regard, two conditions are required. First, climate policies and measures must be appropriate for the specific national conditions of each State, and second, sustainable economic development will strengthen the capabilities of a State to adopt measures to address climate change. At the world level, the ultimate goal for the global action against climate change is to promote through international co-operation a supportive and open international economic system that would lead to sustainable economic growth and development in all States, in particular the developing countries (Article 3, paragraph 5, of the UNFCCC). She observes that several provisions under Article 4 reflect the principle of sustainable development.

8. Judge Xue notes that at the turn of the twenty-first century, a series of United Nations initiatives were launched to address global development challenges, which exerted great impact on the transformation of the development patterns and enriched the substantive elements of the principle of sustainable development. What should be mentioned is the *2030 Agenda for Sustainable Development* with 17 goals to achieve, including poverty, inequality, climate change and environmental degradation. This agenda links global mitigation efforts against climate change with global sustainable development process.

9. Judge Xue points out that the principle of sustainable development also permeates the substantive provisions of the Paris Agreement. The two substantive articles of the Paris Agreement, namely, Articles 2 and 4, provide that the global response to climate change, including the efforts to achieve the long-term temperature goal set out therein, must be carried out on the basis of equity and in the context of sustainable development and efforts to eradicate poverty. That is to say, as a matter of principle, mitigation and adaptation measures must take various economic, social and environmental interests into account so that such measures will be integrated into sustainable development and enhance the efforts towards poverty eradication.

10. Judge Xue refers to the due diligence standard emphasized by the Court. In her opinion, such standard must be applied together with substantive obligations. In the context of climate change, domestic mitigation measures provide the means by which the objectives of the nationally determined contributions can be realized. Such measures must therefore be pursued in accordance with other obligations under the Agreement and must be done, as required under Article 4, paragraph 1, in the context of sustainable development and efforts to eradicate poverty. As is noted above, mitigation is not solely about temperature control. It concerns, first and foremost, human activities and the capabilities of States to manage such activities in light of their specific national circumstances. In which way and to what extent the duty of due diligence is considered discharged

in a State's pursuit of domestic mitigation measures must be assessed with other considerations. That is where the principle of sustainable development comes into play.

11. As an example, Judge Xue refers to Article 3 of the Paris Agreement. She notes that this article informs that the essential elements for determining national ambition in emission reductions are embraced in Articles 4, 7, 9, 10, 11 and 13. These articles relate to mitigation, adaptation, provision of climate finance, technological co-operation, capacity building and transparency. A careful perusal of these articles reveals that the essential issue with the content of the nationally determined contributions is not about how diligently a State party should act in preparing the content of their nationally determined contributions, but on what basis their nationally determined contributions could reflect their highest possible ambition. Among various criteria, sustainability is a frequent reference with regard to mitigation and adaptation measures.

12. In short, Judge Xue considers that the principle of sustainable development is fully embraced in the climate change treaty régime. As a global agenda, a synergy of the global response to climate change and the United Nations Sustainable Development Goals should be pursued. Much to her regret, this imperative is missing in the Advisory Opinion.

13. In regard to the principle of common but differentiated responsibilities, Judge Xue considers that the principle plays a crucial role in addressing the development gap between the developed and developing countries, which poses an inherent obstacle to the global response to climate change.

14. Judge Xue makes two observations on the Advisory Opinion in respect of the principle of common but differentiated responsibilities. First, she does not share the Court's analysis of the current state of affairs. In the Court's view, since the 1992 Rio Conference, developing States have progressed considerably in their development. Some of them now contribute significantly to global GHG emissions and possess the capacity in meaningful mitigation and adaptation efforts (see paragraph 150 of the Advisory Opinion). Judge Xue considers that this analysis is misleading and confusing. It distorts the foundational structure of the treaty régime on climate change.

15. Judge Xue's second observation concerns the additional phrase "in the light of different national circumstances" to the principle of common but differentiated responsibilities in the Paris Agreement. She does not agree with the view expressed in the Advisory Opinion that this new phrase adds nuance to the principle by recognizing that the status of a State as developed or developing is not static, which suggests that the matter depends on an assessment of the current circumstances of the State concerned (see paragraph 226 of the Advisory Opinion). Judge Xue considers that the distinction between developed and developing countries reflects the level of development of States. While the status of a State as developed or developing may indeed be changed by its social and economic advancement indexes, individual changes of States in their social and economic development do not negate the distinction between developed and developing countries that underlies the legal structure of the climate change treaty régime.

16. Judge Xue points out that the classification of development levels of States is subject to a range of economic, social, human and institutional development indicators or indexes, which are set out by institutions such as the United Nations, the International Monetary Fund or the World Bank. This distinction has significant implications for the development planning, policymaking, international aid and global development agenda. For those fast-growing economies, so long as they are classified as developing countries, their obligations under the climate change treaties should

remain the same, notwithstanding their development progress. More importantly, the principle of common but differentiated responsibilities, as a manifestation of equity, reflects certain policy considerations for the global action against climate change. Given the largest share of historical and current global GHG emissions originated in developed countries and the financial resources and technological capabilities these States command, it would not be fair and just to impose the same obligations on developed and developing States alike. As in many other areas, the distinction serves as a basis for international co-operation.

17. Judge Xue further notes that the dilemma between GHG emission reduction targets and development needs exists generally among developing countries but is particularly acute for least developed countries and small island developing States. The reason why the UNFCCC places so much emphasis on the specific needs and special circumstances of developing countries, especially those that are particularly vulnerable to the adverse effects of climate change and those that would have to bear a disproportionate or abnormal burden under the Convention, is that without international co-operation from developed States, including finance and transfer of technology, those developing countries will not be able to deal with the dilemma between the need to adapt to the adverse effects of climate change and the need for poverty eradication and development.

18. On climate justice, Judge Xue underscores that climate change is a contemporary issue of development in international law but has its roots in the past. With increasing environmental standards, manufacturing industries in the developed countries gradually moved abroad, mostly to developing countries where environmental protection was weak. That tendency intensified during the economic globalization process since the 1990s. She refers to the IPCC reports that cheap labour costs and cheap raw materials have led to a net emission transfer and outsourcing of carbon-intensive production from developed to developing economies via global trade. Although net emissions transferred between developing and developed countries have declined since 2006, it is mainly because of the improving carbon intensity of traded products rather than a decline in trade volume, not to mention that developing economies' emission intensity still tends to be higher than that of developed economies due to less efficient technologies and a carbon-intensive fuel mix. In Judge Xue's view, it would not be in conformity with the principle of equity if this transfer of GHG emissions between developed and developing countries is not duly taken into account.

19. With respect to the dire situation of small island developing States and least developed countries, Judge Xue urges that to achieve climate justice, the specific needs and circumstances of these vulnerable groups of States and peoples must be addressed in accordance with the principle of common but differentiated responsibilities. She regrets that this point is not sufficiently addressed in the relevant part of the Advisory Opinion, particularly when question *(b)* is considered. Rules of State responsibility for transboundary environment damage may answer some of the problems but clearly are not sufficient to address the concern of small island developing States; sea-level rise constitutes one important aspect of their concern, but not all. She is of the view that the Advisory Opinion fails to point out that, for peoples and individuals of the present and future generations affected by the adverse effects of climate change, the ultimate solution to guarantee them a clean, healthy and sustainable climate lies in a supportive and open international economic system that would lead to sustainable economic growth and development in all States based on international co-operation between developed and developing States.

20. In conclusion, Judge Xue states that the underlying principles set forth in the UNFCCC are the cornerstones of the climate change treaty régime. Any departure from them will undermine international co-operation in the global action against climate change.

Separate opinion of Judge Bhandari

In his separate opinion, Judge Bhandari underscores the existential urgency of the climate crisis and calls for a more rigorous treatment of certain legal principles in the Court's Advisory Opinion. He expresses concern over the Court's cursory engagement with the "polluter pays" principle, arguing that its limited treatment undercuts a key mechanism of accountability in international environmental law. In his view, the principle's normative grounding, including the rationale for strict liability, should have featured more prominently. Judge Bhandari also highlights ambiguity surrounding the right to a clean, healthy and sustainable environment, noting that, while the Opinion references this right, it fails to clarify its status under customary international law or its normative content.

Judge Bhandari further observes that the Court's treatment of legal consequences could have been approached with greater specificity. He argues that the Court should have identified concrete examples of cessation and restitution, such as the phasing out of fossil fuel-intensive practices, restoration of damaged ecosystems and recognition of maritime entitlements of States affected by sea-level rise. He advocates for equitable remedies including compensation guided by fairness and the establishment of claims commissions and a dedicated United Nations fund to address climate harms. In addition, he suggests that more tangible forms of satisfaction should have been addressed. While recognizing the Opinion's importance as a legal milestone, he stresses that it should be seen as a starting-point, not a final word, on international climate responsibility.

Joint declaration of Judges Bhandari and Cleveland

Judges Bhandari and Cleveland observe that fossil fuel emissions contribute overwhelmingly to climate change, and that measures to phase out fossil fuel dependence and transition to clean energy necessarily are key to States' obligations to limit global warming to the 1.5°C Paris Agreement temperature goal and to fulfil their customary obligations.

They agree with the Court that the international obligations of States with respect to protection of the climate system and other parts of the environment fully encompass activities relating to the production and licensing of, and subsidies for, fossil fuels. They also agree with the Court's conclusion that a State's failure to take appropriate action to protect the climate system from greenhouse gas (GHG) emissions — including with respect to fossil fuel production, the granting of fossil fuel exploration licences and the provision of fossil fuel subsidies — may constitute an internationally wrongful act.

They elaborate further on these obligations of States to protect the climate system and other parts of the environment with respect to the production and licensing of fossil fuels and subsidies.

Judges Bhandari and Cleveland agree with the Court's observation that the Intergovernmental Panel on Climate Change (IPCC) has recognized that patterns of fossil fuel production have "unequivocally" contributed to global warming, that projected emissions from existing fossil fuel infrastructures alone already exceed the carbon budget for limiting warming to 1.5°C, and that "[d]eep, rapid, and sustained reductions in greenhouse gas emissions" are essential to keep global warming within the Paris Agreement's 1.5°C temperature goal. Despite this, States continue to support, finance and expand fossil fuel production, even though such policies are irreconcilable with their global climate commitments. Subsidies also undermine efforts to reduce fossil fuel production and consumption by suppressing prices and making fossil fuels artificially competitive.

The Judges discuss specific obligations of States regarding production, licensing and subsidies with respect to, *inter alia*, environmental risk assessments and the preparation and implementation of nationally determined contributions (NDCs), while respecting States' common but differentiated responsibilities and respective capabilities.

The Judges consider that the customary international law obligation to take substantive and procedural measures to prevent significant harm to the climate system necessarily extend to fossil fuel production, consumption and infrastructure. With respect to procedural obligations, they agree with the Court's observation that environmental impact assessments must include climate-specific effects, including "cumulative" and "possible downstream effects". The Judges note that fossil fuels are produced to be burned. In order to fulfil their obligations under Articles 2 and 4 of the Paris Agreement as well as the stringent due diligence obligations under customary international law, States accordingly must account, in their assessments of environmental risk, for the increased concentration of GHGs in the atmosphere that will foreseeably result from, *inter alia*, production, licensing and subsidy activities. This principle has been confirmed by national and regional courts.

Further, Judges Bhandari and Cleveland consider that Articles 2 and 4 of the Paris Agreement require that NDCs address all fossil fuel production, licensing and subsidy activities in a manner consistent with achieving the 1.5°C temperature goal. Thus, the stringent due diligence obligations to implement such NDCs and to prevent significant transboundary harm require States to adopt and enforce regulations consistent with reducing global dependence on fossil fuels, including by phasing out production and use of fossil fuels and subsidies and transitioning away from fossil fuels, *inter alia*, by taking account of downstream consequences and regulating in a manner that does not undermine global co-operation.

In light of the principle of common but differentiated responsibilities and respective capabilities, the Judges point out that States with greater resources and technical capabilities are obligated to transition away from fossil fuel production and dependency with deeper and faster targets than developing States with lesser capabilities. The climate change treaties also require States with greater capabilities to provide financial and technological assistance to help those with lesser capabilities transition away from fossil fuel production and other forms of fossil fuel dependency and towards clean energy production. In this regard, the Judges note that COP 28 called for the phasing out of fossil fuel subsidies "that do not address energy poverty or just transitions".

However, the Judges emphasize that the obligations to transition away from fossil fuel dependency apply to all States, and the principle of common but differentiated responsibilities and respective capabilities does not exempt any State from measures that are necessary, consistent with their capabilities and national circumstances, to fulfil the objectives of the climate change treaties and stringent due diligence obligations.

In sum, as the Advisory Opinion recognizes, the legal obligations of States with respect to the protection of the climate system and other parts of the environment require States to take full responsibility for, and to aggressively redress, the contributions of production, licensing and subsidies of fossil fuels to the destruction of the climate system.

The Judges conclude by emphasizing the requirement of a fundamental transformation of our habits, comforts and way of life to safeguard the future of humanity. They note that while the Court's role is to provide legal clarity, the primary responsibility to act rests with States and the private actors subject to their jurisdiction, who must re-evaluate and reform their policies to achieve the transformative change essential for the preservation of our shared future.

Declaration of Judge Nolte

Judge Nolte appends a declaration to the Advisory Opinion to elaborate on two points: the relationship between the climate change treaties and corresponding customary obligations, and certain issues concerning legal consequences.

Regarding the first point, Judge Nolte takes the view that the climate change treaties and their implementation confirm and influence the content of the general customary rules and give substance

to them. Judge Nolte stresses that this is not an application of the *lex specialis* principle. Rather, he considers that the obligations contained in the universally ratified climate change treaties and their implementation practice express what States generally consider to be adequate to fulfil their less determinate customary obligations. Judge Nolte affirms the Court's recognition that, at present, the full and bona fide compliance by a State with its obligations under the climate change treaties "suggests" that this State is substantially complying with, i.e. is presumed to be fulfilling, its customary duty to prevent significant harm to the environment. This is a way to achieve a harmonious interpretation of, and to maintain a proper relationship between treaties and customary international law. He considers that the presumption is a qualified one and leaves room for nuance and complexity.

With regard to the second point, Judge Nolte is of the view that addressing legal consequences only in a general manner risks creating false expectations, at least with respect to possible claims for compensation. He believes that the Court should have acknowledged that international law, unlike several domestic legal systems, does not currently contain a general customary rule establishing strict liability for certain lawful acts. In his opinion, such an acknowledgment would not have precluded the future development of such a rule.

Judge Nolte then expresses his view that — while the Court has correctly identified that anthropogenic climate change is caused by a plurality of acts — for compensation to be owed under the customary rules on State responsibility, a harm must flow from a wrongful act or a plurality of wrongful acts. While natural science may be able to identify with a high degree of precision the contributions of each State to the balance of anthropogenic greenhouse (GHG) emissions in the atmosphere, it cannot determine wrongfulness. Judge Nolte further emphasizes that because an obligation of conduct is not an obligation of result, a State's breach of the obligation of prevention cannot easily be translated into a given quantity of emissions for the purpose of determining compensation.

Judge Nolte also considers certain intertemporal matters. He takes the view that, while the obligation to prevent significant harm to the environment was first recognized in the 1940s, it could not have applied to GHG emissions until the emergence of a general understanding and recognition of the risks associated with such emissions in the second half of the 1980s. This limits the amount of emissions that could be the consequence of wrongful acts. In the Judge's view, the Court should have addressed questions of intertemporal law.

Judge Nolte concludes that much depends on how the Advisory Opinion will be understood. He expresses his hope that the Opinion will reinforce the commitment of States to tackling climate change through legally framed forms of political and administrative co-operation, with respect to which litigation should play only a complementary role.

Separate opinion of Judge Charlesworth

Judge Charlesworth has joined Judges Brant, Cleveland and Aurescu in a joint declaration concerning the relationship between States' obligations under customary international law and the climate change treaties. She also writes separately to address the application of the precautionary principle to States' climate change obligations and to elaborate on States' climate change-related obligations under international human rights law in the context of the right to a clean and healthy environment and climate vulnerable groups.

Judge Charlesworth notes that the Advisory Opinion does not fully explore the relationship between the precautionary principle and the principle of prevention. She explains that the two principles complement each other, with the precautionary principle retaining a distinct scope of application.

Judge Charlesworth also discusses the content of the right to a clean and healthy environment. She welcomes the Advisory Opinion's confirmation of States' climate change obligations under human rights law and highlights the procedural dimensions of this finding.

She also draws attention to the position of climate vulnerable groups, such as Indigenous peoples, women, children and people with disability. She illustrates the harmful effects of climate change on these vulnerable groups by reference to the written and oral submissions of participants in the advisory proceedings. She concludes that States have particular human rights obligations towards vulnerable groups, notably through the application of the principles of equality and non-discrimination.

Joint declaration of Judges Charlesworth, Brant, Cleveland and Aurescu

Judges Charlesworth, Brant, Cleveland and Aurescu wish to clarify the Court's reasoning on the relationship between States' obligations under the climate change treaties and under customary international law.

The Judges agree with the Court's decision to reject the argument of some participants that the climate change treaties constitute *lex specialis* in their relation to other sources of international law, and they believe that the Court's findings on the relationship between the climate change treaties and other sources of international law should be interpreted in this light.

The Judges endorse the view that the relevant obligations under customary international law and the climate change treaties retain a separate existence and maintain their own scope of application. This follows from the Court's jurisprudence as well as the relevant rules on the relationship between the two sources both under general international law and climate change law.

The Judges emphasize that States' compliance with their climate change obligations under customary international law cannot be determined by simply assessing those States' implementation of the climate change treaties. These treaties are not proxies for assessing compliance with the rules of customary international law.

Declaration of Judge Cleveland

1. Judge Cleveland observes that existing international law imposes stringent obligations on States regarding protection of the climate system, including with respect to the production, licensing and subsidization of fossil fuels, as discussed in her joint declaration with Judge Bhandari. She writes separately to elaborate on the obligations of States with respect to carbon sinks and reservoirs, harms to the climate system resulting from armed conflicts, and the relationship between international investment law and climate obligations.

2. International law recognizes the crucial role of carbon sinks and reservoirs, such as forests, wetlands and the ocean, in climate mitigation. Judge Cleveland underscores, among others, that the Paris Agreement requires States parties to fulfil the 1.5°C temperature goal by achieving a balance between greenhouse gas (GHG) emissions and removals by carbon sinks and reservoirs. Indeed, protection and enhancement of carbon sinks and reservoirs is central to States' obligations in combating climate change under the climate change treaties, other environmental treaties and the United Nations Convention on the Law of the Sea, as well as States' customary international law obligations to prevent significant harm to the environment and to co-operate in such efforts.

3. With respect to all of these obligations, States with greater capabilities and those that are major contributors to global warming have a responsibility to assist less-resourced States, including

in the preservation of carbon sinks and reservoirs. Judge Cleveland agrees with the Court's conclusion that breaches of obligations with respect to carbon sinks and reservoirs would give rise to legal consequences under the law of State responsibility, including the duty of cessation.

4. Judge Cleveland then addresses two other rules of international law that the Advisory Opinion recognizes as relevant to climate change: international humanitarian law and international investment law. With respect to the former, she highlights the significant damage to the environment caused by armed conflicts and other military activities — both with respect to GHG emissions and the destruction of carbon sinks — and observes that the obligations of States to assess, report on, and mitigate harms to the climate system must include these impacts. This includes accounting for such harms in national inventories under the United Nations Framework Convention on Climate Change and in the preparation and implementation of nationally determined contributions under the Paris Agreement. The stringent customary international law obligations to prevent harm to the environment and to co-operate also require States to take into account harms resulting from armed conflicts and other military activities.

5. Turning to international investment law, Judge Cleveland notes that the Intergovernmental Panel on Climate Change has observed that international investment agreements may lead to "regulatory chill", which may lead to countries refraining from or delaying the adoption of mitigation policies. Judge Cleveland considers that the interpretation of investment instruments must be informed by States' obligations in respect of climate change under international law, including the stringent due diligence standard to which States are bound in implementing such obligations.

Separate opinion of Judge Aurescu

In his separate opinion Judge Aurescu addresses two main topics: sea-level rise and the right to a clean, healthy and sustainable environment.

He welcomes the finding by the Court that the United Nations Convention on the Law of the Sea (UNCLOS) does not require States parties to update their lists of geographical co-ordinates or charts that show the baselines and outer limits of their maritime zones in the context of physical changes produced by sea-level rise. However, in his view, the reasoning of the Court on which this finding was based could have been more comprehensive, including, especially, the principle of legal stability, security, certainty and predictability, which applies to all aspects related to sea-level rise, including fixed baselines, continuity of statehood and non-applicability of *rebus sic stantibus* to existing maritime delimitations. The Judge also regrets that the Court failed to recognize that the "fixed baselines" in the context of sea-level rise has become part of the customary international law. In that respect, he provides comprehensive arguments regarding the widespread, representative and consistent practice of over 100 States in the form of statements and submissions in the United Nations framework, domestic legislation, regional and cross-regional declarations, as well as the existence of *opinio juris*, since such elements of State practice also indicate that these States perceive the fixed baselines to be the expression of an obligation under international law. Judge Aurescu also points out that the Court missed an opportunity to clarify that the concept of *rebus sic stantibus* does not apply to existing maritime delimitations in the context of sea-level rise. He also believes that the Court should have chosen better wording when addressing the continuity of statehood. The Judge believes that the disappearance of one (or more) of the initial constituent elements does not only not affect the existing statehood but also does not involve the loss of membership of the United Nations and of other international organizations. Also, Judge Aurescu considers that the Court's reasoning as to the obligation to co-operate in addressing sea-level rise is incomplete as it does not take into account the principle of legal stability, security, certainty and predictability; at the same time, the "equitable solutions", which the implementation of the duty to co-operate must bring, should be understood as having as sole purpose the protection of the existing

rights of the States and of their populations affected by the negative effects of sea-level rise. Finally on this topic, it is regrettable that, in relation to the obligation of non-refoulement under international human rights law, the Court did not acknowledge that it also includes positive obligations to take proactive measures to prevent refoulement and to ensure that other rights are respected during the individuals' stay in the State's territory.

In relation to the right to a clean, healthy and sustainable environment, Judge Aurescu agrees with the Court's findings, while, however, he finds them incomplete. According to him, this right has become a norm of customary international law. Its customary nature is affirmed in the submissions of States before the Court. As examples of State practice, Judge Aurescu refers *inter alia* to the Stockholm and Rio Declarations, the Sharm el-Sheikh report of the Conference of the Parties of the UNFCCC serving as meeting of the parties to the Paris Agreement, the resolutions of the Human Rights Council and the General Assembly, the participation of States to a multitude of international treaties, as well as the provisions of a large number of national constitutions and domestic legislation. Regarding the existence of *opinio juris*, he invokes the language employed in national constitutions and legislative instruments as well as the provisions of international treaties that recognize this right in expressly normative terms. The Judge also refers to the voting pattern of General Assembly resolution 76/300 recognizing the right to a clean, healthy and sustainable environment as a human right, adopted with 161 votes in favour, none against, and only 8 abstentions, thus further reinforcing the normative character of the mentioned practice. Finally, Judge Aurescu invokes that the jurisprudence of the international courts confirms the customary law character of the right to a clean, healthy and sustainable environment.