THE INTERNATIONAL COURT OF JUSTICE (ICJ)

REQUEST FOR AN ADVISORY OPINION BY UN GENERAL ASSEMBLY RESOLUTION 77/276 (77TH SESSION), 29 MARCH 2023, CONCERNING *OBLIGATIONS OF STATES IN RESPECT OF CLIMATE CHANGE*

WRITTEN STATEMENT OF THE ORGANIZATION OF THE PETROLEUM EXPORTING COUNTRIES (OPEC)

19 MARCH 2024

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CHAPTER I
INTRODUCTION

1. The Organization of the Petroleum Exporting Countries (OPEC) is a permanent intergovernmental organization created at the Baghdad Conference on 10-14 September 1960 by five Founding Member Countries, and is now comprised of 12 Member Countries: Algeria, Congo, Equatorial Guinea, Gabon, IR Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, the United Arab Emirates and Venezuela.

2. For the last 63 years, to properly implement its statutory objectives, the Organization has studied in great detail the global energy markets and their impact on the global economy and development of nations. Additionally, OPEC has been involved in the negotiations that have taken place within the United Nations Framework Convention on Climate Change (UNFCCC) (including the Paris Agreement) and it continues to participate in their yearly Conference of Parties (COP) meetings.

3. Accordingly, and based on the understanding gained from these activities, OPEC wishes to contribute to the Court's deliberation on this Advisory Opinion, with the main aim of illustrating the complexities of the energy systems on which modern societies work and how applying legal prescriptions that are not endorsed by all States, no matter how well intended, can severely interfere with the global framework established to address climate change. Such intervention will only delay urgent action that is needed to reduce Greenhouse Gas (GHG) emissions.

4. Upon adoption of UN General Assembly Resolution 77/276 on 29 March 2023, the International Court of Justice was requested, 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?

5. It is important to establish the scope of these questions. They focus on the intersection of two elements on: a) obligations of States under international law and the legal consequences, and b) the protection of the climate system and other parts of the environment from "anthropogenic emissions of greenhouse gases".

6. Environmental challenges are plentiful, each of which is governed by the relevant applicable rules of international law. However, the questions posed in UN General Assembly Resolution 77/276 of 29 March 2023 relate only to anthropogenic GHG emissions and their impact on the climate system and other parts of the environment. The Court is asked to address these questions with regard to obligations of, and legal consequences for States under the rules of "international law". OPEC will thus focus its legal observations on these particular aspects, based on its deep understanding of how energy systems work and the potential consequences of abrupt modifications in it.

7. The content of OPEC's submission will stress how the conditions and realities of the global energy systems give ground to the special legal framework that States have agreed to regulate GHG emissions. It will explain why a prescriptive approach is neither legally applicable nor effective in practice (the negative experience with the failure of the Kyoto Protocol should serve as a direct warning), and why a collaborative approach (such as the Paris Agreement) is the only way to address this matter. OPEC's submission will highlight the fact that there are multiple pathways for decarbonization (as recognized as recently as in the COP28 UAE Consensus)[1] and prescriptiveness for the reduction of anthropogenic GHG emissions and adaptation is not an option. Therefore, current or future legal rules cannot prescribe a rigid solution applicable to all States.

8. The overarching objective of this request for an Advisory Opinion is for the Court to clarify existing rules of international law that apply to States when dealing with

[1] *See* UAE Consensus, COP28, available at: https://unfccc.int/cop28/outcomes

anthropogenic GHG emissions. It is "*not to place additional obligations or responsibilities*" on States.[2] It is key to point out that in international law there are binding "obligations" that States have accepted, as well as "principles" that help guide States but are not to be perceived as separate binding obligations. A distinction between both is indispensable, as outlined below.

9. OPEC stresses that the legal sources of obligations with respect to the protection of the climate system from anthropogenic GHG emissions are to be found in the self-contained *lex specialis* regime of the Kyoto Protocol, Paris Agreement and the UNFCCC, which specifically and solely govern the protection of the climate system from anthropogenic GHG emissions. While the existence of treaties does not generally preclude the application of other sources of international law, highly controversial and divisive subject matters such as ones related to anthropogenic GHG emissions, where the international community could achieve agreement only after long and protracted negotiations, indicates that State Parties intended to regulate the subject comprehensively and conclusively in this *lex specialis* regime while ruling out the application of other sources.[3] The UNFCCC, Kyoto and Paris Agreement are comprehensive enough so as to encompass the relevant principles applicable, which are taken as guiding concepts for the application of the obligations explicitly included in the *lex specialis* regime.

10. Additionally, OPEC emphasizes **two main relevant findings** to the questions presented to the Court, both of which stem from the *lex specialis* regime:

    1) Obligations of States to protect against anthropogenic GHG emissions are:

    a) An obligation incumbent on all State Parties to submit nationally determined contributions (NDCs) (Article 4(2) of the Paris Agreement);

    b) An obligation of conduct incumbent on all State Parties, to adopt climate change domestic measures and actions towards achieving their NDCs objectives (Articles 4(2) and 7(9) of the Paris Agreement);

    c) An obligation incumbent on Annex I to the UNFCCC State Parties to provide financial support and enable technology transfer to non-Annex I to the UNFCCC Countries (Articles 9 of the Paris Agreement and 4(3) of the UNFCCC).

    2) The legal consequences for States of significant harm to the climate system and other parts of the environment with respect to States or peoples and individuals of the present and future generations are to be addressed primarily by

[2] UN General Assembly, Seventy-seventh session, 64th plenary meeting, 29 March 2023, UN Doc. A/77/PV.64, p. 8 (European Union).
[3] Alan Boyle and Catherine Redgwell, *International Law and the Environment* (4th edn., 2021), p. 361-362.

international cooperation in advancing the existing mechanisms in place in the *lex specialis* regime, which does not include liability or damages. This special regime governs these consequences.

11. These obligations and legal consequences, as set out in the special treaty rules, are all to be implemented in the context of sustainable development, poverty eradication, equity, common but differentiated responsibilities, and differing national circumstances of States.

12. These conclusions are further elaborated in the analysis below, without prejudice to OPEC's right to further expand its arguments in future submissions and oral proceedings.

CHAPTER II
JURISDICTION OF THE COURT AND APPLICABLE LAW

A) Scope of the Court's Advisory Jurisdiction:

13. The Court's advisory jurisdiction is defined by the questions set out in resolution 77/276 of 29 March 2023. The Court is therefore called upon to confine its opinion to the questions presented to it. These questions have undergone numerous rounds of refinement and convey the international community's desire for clarification on the existing international legal obligations in connection with anthropogenic GHG emissions.[4] The focus of the opinion should therefore be on anthropogenic GHG emissions as the basis of any obligations of States and the legal consequences of significant harm to the climate system and other parts of the environment.

14. The request for Advisory Opinion is limited to anthropogenic GHG emissions. This type of emissions is well defined in the special international legal regime on climate change. Article 1 of the UNFCCC defines, inter alia, the terms "climate change", "climate system", "emissions" and "greenhouse gases". Article 1 of the Paris Agreement incorporates the definitions in the UNFCCC. Anthropogenic emissions, i.e. emissions attributed directly or indirectly to human activity, are at the heart of both the UNFCCC,[5] and the Paris Agreement.[6] The international community, on the basis of scientific evidence, aims to restrict these human-induced emissions.

B) Applicable Law:

15. The Court is asked to clarify the obligations of States "under international law" in connection with anthropogenic GHG emissions. What is at issue here is the international *lex lata*, not the *lex ferenda*. As the UN Secretary-General pointed out: "Advisory opinions can provide much-needed clarification on *existing* international legal obligations."[7] The current rules of international law on anthropogenic GHG emissions, including any obligations upon States, are laid down in the *lex specialis* regime of the UNFCCC, Kyoto Protocol and Paris Agreement.

16. The Court is to clarify existing obligations, not impose new or additional obligations. This was expressly noted by the representative of the European Union (EU), speaking on behalf of the EU and its 27 member States and ten further States, when expressing support for Vanuatu's initiative of requesting an Advisory Opinion from the Court on

[4] UN General Assembly, Seventy-seventh session, 64th plenary meeting, 29 March 2023, UN Doc. A/77/PV.64, p. 8 (European Union).
[5] See, e.g., Articles 1(2), 2, 3(4) and 4 UNFCCC.
[6] See, e.g. Article 4(1), (13) (14), Article 13(7)(a) Paris Agreement. See also Decision 1/CP.21, paras. 27, 31, 36.
[7] UN General Assembly, Seventy-seventh session, 64th plenary meeting, 29 March 2023, UN Doc. A/77/PV.64, p. 1 (emphasis added). For the emphasis on clarifying existing obligations, see also ibid., p. 16 (Viet Nam), p. 19 (Romania), p. 22 (Republic of Korea), p. 26 (Norway).

obligations of States in respect of climate change. The EU representative stated that "[T]*he EU and its member States welcome the explanation provided by Vanuatu that its intention in leading this effort has been that the Court, will not place additional obligations or responsibilities' on States."*[8]

17. When considering the existing obligations of States in respect of anthropogenic GHG emissions, the Court needs to distinguish between**:**

    a) "Obligations" that States have committed to under the *lex specialis* regime; and

    b) "Principles" applicable with respect to climate change.

    It must be emphasized that principles are not the same as obligations and they should not be construed as such. Principles provide guidance for the implementation of obligations, rather than constituting obligations themselves. Obligations also cannot simply be "found" or "created" by mere logical deduction from principles.

18. There are multiple other international treaties that deal with harmful substances, for example, hydrochlorofluorocarbons (HCFCs) or hydrofluorocarbons (HFCs) and chlorofluorocarbons (CFCs). These substances fall under other carefully crafted regimes, such as the Vienna Convention for the Protection of the Ozone Layer, 1985, and the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, as adjusted and amended on 29 June 1990 and 25 November 1992. The UNFCCC explicitly excludes these substances from its scope of application as they require a special approach as set out in their governing treaties.[9] Therefore, these other substances are outside the scope of the present request for Advisory Opinion. The Court should focus in its opinion on anthropogenic GHG emissions as dealt with within the UNFCCC, Kyoto Protocol and Paris Agreement.

19. Regarding sources beyond international treaties, any creation of new law by way of deduction from principles or by asserting new rules of customary international law on GHG emissions matters would run contrary to the cardinal principle of international law - the sovereignty of States. It is the States that are the supreme law-makers in the international legal system. It is thus for States to agree upon and develop the obligations in respect to climate change. The Court's role is to clarify these obligations, but not to create them. In case of doubt about a particular obligation, the Court should exercise restraint. In particular, as in the *Interpretation of Peace Treaties Advisory Opinion,* the rule of effectiveness *Ut res magis valeat quam pereat* cannot justify the Court in attributing to the provisions of a treaty such as the UNFCCC, Kyoto Protocol or the Paris Agreement a meaning which would be contrary to their letter and spirit

[8] UN General Assembly, Seventy-seventh session, 64th plenary meeting, 29 March 2023, UN Doc. A/77/PV.64, p. 8.
[9] See Article 4 of the UNFCCC.

.[10] In this context, it seems pertinent to recall what the Court said in the *South West Africa* cases:

> *It may be urged that the Court is entitled to engage in a process of 'filling in the gaps', in the application of a teleological principle of interpretation, according to which instruments must be given their maximum effect in order to ensure the achievement of their underlying purposes. The Court need not here enquire into the scope of a principle the exact bearing of which is highly controversial, for it is clear that it can have no application in circumstances in which the Court would have to go beyond what can reasonably be regarded as being a process of interpretation, and would have to engage in a process of rectification or revision. Rights cannot be presumed to exist merely because it might seem desirable that they should. … In other words, the Court cannot remedy a deficiency if, in order to do so, it has to exceed the bounds of normal judicial action.*[11]

20. Therefore, the Court may also wish to refrain from engaging in certain aspects of the present request, as it has recalled in the *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory Advisory Opinion*.[12] Where questions are posed in an abstract form, the Court's practice, as highlighted in the *Conditions of Admission of a State to Membership in the United Nations (Article 4 of the Charter) Advisory Opinion,* has reciprocated this form with an Opinion that is confined in its assessment.[13]

21. The Court should not only refrain from creating new obligations by way of "interpreting" existing treaty provisions, it should also resist suggestions to "find" new obligations in customary international law. Assumptions do not form grounds for the introduction of international rules to be applied to specific areas, as highlighted in the *Dissenting Opinion of Judge Tomka* in *the Question of the Delimitation of the Continental Shelf between Nicaragua and Colombia Case*.[14]

22. States have not reached any consensus on accepting obligations regarding climate change and anthropogenic GHG emissions specifically that are grounded on

[10] *See Interpretation of Peace Treaties* (second phase), Advisory Opinion, ICJ Reports 1950, p. 221 at p. 229
[11] South West Africa (Liberia v. South Africa, Ethiopia v. South Africa), Second Phase, Judgment, ICJ Reports 1966, p. 6 at p. 48, para 91
[12] *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*, Advisory Opinion, I.C.J. Reports 2004, p. 136, at p. 156, para 44.
[13] *Conditions of Admission of a State to Membership in the United Nations (Article 4 of the Charter)*, Advisory Opinion, 1948, I.CJ. Reports 1947-1948 para 61.
[14] Dissenting Opinion of Judge Tomka in *Question of the Delimitation of the Continental Shelf between Nicaragua and Colombia beyond 200 nautical miles from the Nicaraguan Coast (Nicaragua v. Colombia)*, ICJ Judgment, 13 July, 2023.

customary international law or an expansive version of general principles of law. Where States are divided, the Court has exercised caution in declaring new rules, as in the *Legality of the Threat or Use of Nuclear Weapons Advisory Opinion*. [15] The international community comprises close to 200 sovereign independent States, all of which enjoy different levels of development, cultures, and political and legal systems. Many States, Annex I and non-Annex I to the UNFCCC Countries alike, have persistently objected in international forums to the declaration of rules based on these two primary sources of obligations when it comes to climate change. While the UN International Law Commission (ILC) has played a critical role in progressively codifying rules of international law, it was one of the forums that has confronted clear rejections from States about expanding obligations of States regarding climate change beyond the consensus States have reached in widely accepted *lex specialis* rules on anthropogenic GHG emissions in the UNFCCC, Kyoto Protocol and the Paris Agreements.[16] Where the UNFCCC parties are 198 States, the Kyoto Protocol parties

[15] The international community has rather agreed to contain the regulation of anthropogenic GHG emissions within the scope of the UNFCCC and Paris Agreement. The existence of a new rule of international custom or its content cannot thus be declared. *See Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, I.C.J. Reports 1996 at p. 254 para 67. Also *see* Draft Conclusions on Identification of Customary International Law, with Commentaries 2018, in ILC Report, 70th Sess., at 158, UN Doc. A/73/10 (2018) at p. 139 para 5.

[16] The UN International Law Commission's (ILC), in its efforts to progressively codify rules on the protection of the atmosphere, witnessed multiple objections by States. The ILC's approach was considered as an attempt to diverge from all the consensus that has occurred when agreeing on existing international agreements like the Paris Agreement, UNFCCC, and Kyoto Protocol. See U.N. GAOR, 69th Sess., 6th Comm., 21st mtg. at 22, para 135, U.N. Doc. A/C.6/69 /SR.21 (Nov. 18, 2014), available at: https://www.un.org/en/ga/sixth/69/ilc.shtml The United States, amongst other countries, shared its concern about the topic in a Statement it provided, on the topic of the "Protection of the Atmosphere," expressing that it is not a suitable topic. It Stated:

> *Our original concerns-which were shared by a number of other countries-ran along two main lines. First, we did not believe that the topic was a useful one for the Commission to address, since various long-standing instruments already provide not only general guidance to States in their development, refinement, and implementation of treaty regimes, but in many instances very specific guidance tailored to discrete problems relating to atmospheric protection. As such, we were concerned that any exercise to extract broad legal rules from environmental agreements concluded in particularized areas would be infeasible and unwarranted, and potentially quite harmful if doing so undermined carefully-negotiated differentiation among regimes. Second, we believed that such an exercise, and the topic more generally, was likely to complicate rather than facilitate future negotiations and thus to inhibit State progress in the environmental area.*

See Statement by the United States of America United States Delegation 69th General Assembly Sixth Committee Agenda Item 78 - October 29 - November 3, 2014 Report of the International Law Commission on the Work of its 66th Session Extradite or Prosecute, Subsequent Agreements and Subsequent Practice in Relation to the Interpretation of Treaties, Protection of the Atmosphere, and Immunity of State Officials from Foreign Criminal Jurisdiction, United States Mission to the United Nations, available at: https://www.un.org/en/ga/sixth/69/pdfs/Statements/ilc/us_2.pdf

Also see Shinya Murase, Special Rapporteur, UN Doc A/CN.4/711 para 4, 8 February 2018, New York, 30 April–1 June 2018; Geneva, 2 July–10 August 2018; ILC Provisional Summary Record 3247th Meeting, UN Doc A/CN.4/SR.3247 at para 24 (Kittichaisaree), para 42, 43 (Hmoud); ILC Provisional Summary Record 3213th Meeting, UN Doc A/CN.4/SR.3213 at para 21, para 22 (Hernández); ILC Provisional Summary Record 3246th Meeting, UN Doc A/CN.4/SR.3246 at para 2 (Murphy), para 14 (Nolte); ILC Provisional Summary Record 3247th

are 152, the Paris Agreement has 195 State parties.[17] These two instruments represent the present state of what addressing anthropogenic GHG emissions entails from the international community.

23. The Court is called upon to preserve what States have clearly agreed to. States have agreed on a special regime in its obligations and legal consequences. Where no clear international consensus exists on an issue of international law, international tribunals should refrain from declaring obligations or legal consequences to govern States' conduct or accept subjective views of the law as a valid source for all States.[18]

Meeting, UN Doc A/CN.4/SR.3247 at para 2–5 (Wood), para17 (Hassouna), para 35-36 (Šturma), para 50-51 (Petrič); ILC Provisional Summary Record 3212th Meeting, UN Doc A/CN.4/SR.3212 at para 5-6 (Hmoud); Summary Record 22nd Meeting, UN Doc A/C.6/69/SR.22 at para 28-30 (Alabrune, France).

[17] See United Nations Framework Convention on Climate Change: Status, UN TREATY COLLECTION, https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXVII-7&chapter=27&Temp=mtdsg3&clang=_en; Paris Agreement: Status, UN TREATY COLLECTION, https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en

[18] *See Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, I.C.J. Reports 1996 at p. 254 para 67; Draft Conclusions on Identification of Customary International Law, with Commentaries 2018, in ILC Report, 70th Sess., at 158, UN Doc. A/73/10 (2018) at p. 139 para 5.

CHAPTER III
THE GLOBAL ENERGY SYSTEMS AND ANTHROPOGENIC GHG EMISSIONS

24. For the special legal regime on climate change to succeed, it requires an intentionally flexible approach that reflects an understanding of the inherent complexity of international energy systems balanced with all States' sovereign right to pursue their development needs and select the energy mix that satisfies their needs. Understanding how energy systems operate is essential to adequately address climate change. The forms in which energy systems function and evolve to serve different development needs like everyday energy consumption, including transportation, or residential and commercial consumption, determines levels of global GHG emissions. Notwithstanding this role for energy systems, there are also other significant sources of GHG emissions, such as agriculture and industry. To address the global issue of climate change against this backdrop, the Kyoto Protocol, UNFCCC and Paris Agreement navigated these differing challenges through acknowledging States' different national circumstances, development needs, and common but differentiated responsibilities and respective capabilities.

A) Energy Scenarios in OPEC's World Oil Outlook towards Achieving Climate Change Goals:

25. Given the increasingly polarized global discourse on energy issues, it is necessary to refocus on comprehensive, realistic and resilient scenarios that support and enable sustainable development. It is important to remember that the Paris Agreement is a development international treaty where the global response to climate change is sought "*in the context of sustainable development and efforts to eradicate poverty*"[19].

26. The World Oil Outlook (WOO) [20] is a yearly publication that OPEC has been releasing since 2007, which contains the Organization's data-driven views on how the future energy landscape may evolve. The WOO combines the expertise of the OPEC Secretariat, professionals in OPEC Member Countries and the Organization's Economic Commission Board, as well as input from various other sources. In the WOO, OPEC underscores the major questions and challenges the world faces when imagining a common energy future. The publication aims for a transparent, open-minded and facts-based dialogue to help enable a sustainable energy and economic future for all. This should focus on all energy sources, all relevant technologies and the views of all stakeholders.

27. OPEC considers **two plausible scenarios** in its WOO against a baseline case. This reference or baseline case sees oil demand reaching 116 million barrels a day (mb/d) by 2045, and with a potential to be even higher. These scenarios reflect the uneven

[19] Paris Agreement Article 2(1)
[20] 2023 World Oil Outlook 2045 (OPEC Secretariat Publication, October 2023).

distribution of adverse impacts across countries and regions arising from the implementation of response measures, mainly those of climate mitigation action on energy systems, as described in the following paragraphs:

a. **The 'Advanced Technology' Scenario**: illustrates a technology-driven means of limiting the global temperature increase to well below 2°C, while curbing the negative economic impact on non-Annex I to the UNFCCC economies and ensuring maximum energy security. This scenario shows a possible pathway where both a higher share of renewable energy and other technological options that support the continued use of oil and gas co-exist, including a much greater diffusion of carbon capture utilization & storage (CCUS), carbon capture and storage (CCS) and direct air capture (DAC) technologies in industrial sectors, stronger investment in hydrogen supply networks, and the increasing adoption of a Circular Carbon Economy framework across the global economy. Primary energy demand in this scenario will be almost 55 mboe/d lower by 2045 compared to the Reference Case. Oil demand, after stabilizing at over 100 mb/d until around2035, will then drop slightly towards 98 mb/d by 2045, which is 18 mb/d lower than in the Reference Case.

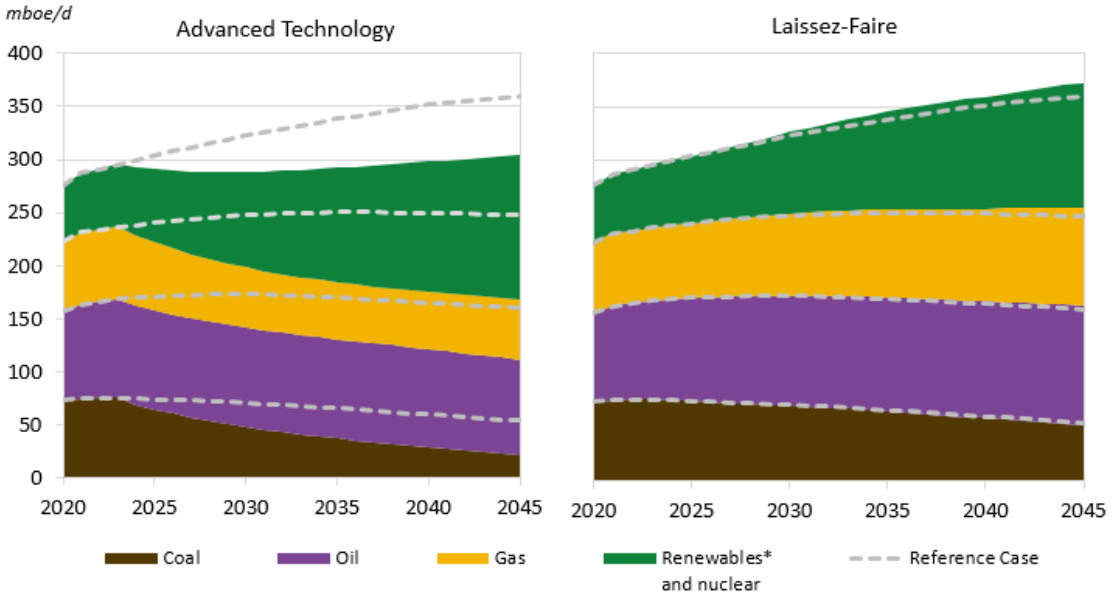
b. **The 'Laissez-Faire' Scenario**: assumes a faster return to higher economic growth during the medium-term and maintains this stronger growth in the long-term, especially for non-Annex I to the UNFCCC Countries. As a result, Africa, India, and non-Annex I to the UNFCCC Countries in Asia and Latin America see their economies expand faster compared to the Reference Case.

   In turn, this leads to higher levels of industrialization and urbanization, which then results in a larger middle class and improved living conditions for many millions of people. Part of this change will be improved energy access in the least developed regions, the further eradication of energy poverty and a quicker transition to modern energy sources, including renewable energy, oil, gas and nuclear power, especially in the second part of the forecast period.

   Policies will tighten in the future, contributing to improved efficiencies and supporting the further expansion of renewables;. Moreover, protectionism and unilateralism will play a more important role in prioritizing local development needs over global issues.

28. These scenarios reflect on both how future energy demand and the energy mix are likely to be affected (Figure 1) and estimates the adverse distributional impacts of response measures and the corresponding level of global emission reductions. The two scenarios start with the same basic socio-economic Reference Case assumptions on global population and economic development to 2045.

Figure 1: *Global Primary Energy Demand in the Reference Case and in Alternative Scenarios, 2020-2045*



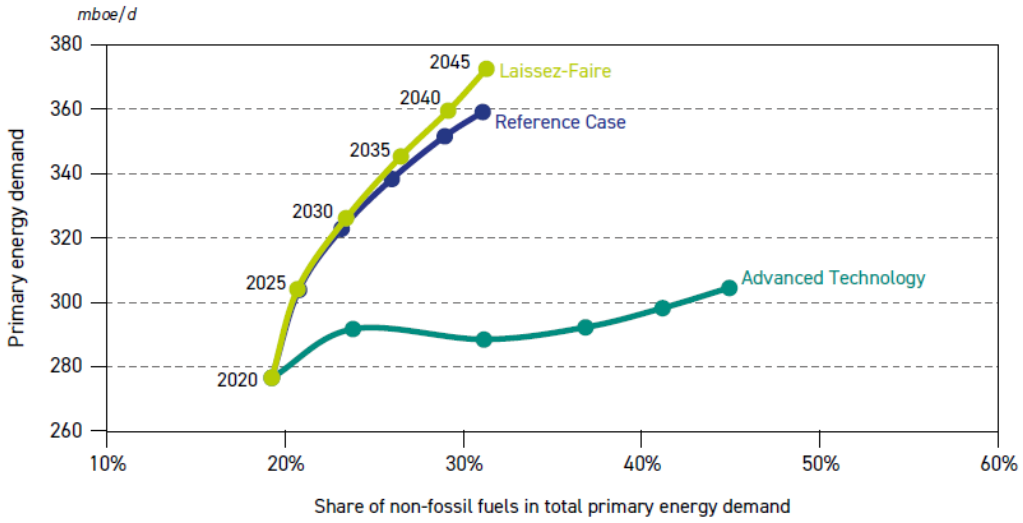
**Note: Renwables include hydro, biomass, wind, solar and geothermal energy*
Source: OPEC

29. The dynamics of this link between the level of primary energy demand and the share of non-fossil energy types in the energy mix of specific scenarios are captured in *Figure 2*. It shows that the Advanced Technology and Laissez-Faire Scenarios, as well as the Reference Case, evolve in a different way and represent fundamentally different energy systems at the end of the forecast period.

30. The share of non-fossil fuels in the Advanced Technology Scenario is projected by the WOO to gradually grow to around 45% by 2045. This share, in combination with the use of CCUS technologies, would be sufficient to contribute to the emissions reduction required to achieve the Paris Agreement objectives. Moreover, a larger contribution of natural gas together with a lower reduction of coal demand compared to other scenarios focusing on a higher share of renewable energy sources, will allow for a larger electricity baseload. Therefore, the intermittency issue, electricity storage and investments to shift to a higher degree of electrification (e.g. in the road transport, residential and industry sectors), is expected to be less of a problem in the Advanced Technology Scenario.

Figure 2: Global Energy System in the Reference Case and in Alternative Scenarios, 2020-2045

Global energy system in the Reference Case and in alternative scenarios, 2020–2045



Source: OPEC.

B) A Multiplicity of Climate Change Action Methods:

31. In application of the common but differentiated responsibilities and respective capabilities principles, in light of different national circumstances, which are enshrined in the UNFCCC, Kyoto Protocol and Paris Agreement,[21] States have devised a multiplicity of ways which they deem domestically appropriate to address anthropogenic GHG emissions. The overarching shared effect of these domestic actions is to address global levels of emissions.[22]

32. States are subject to their specific national circumstances when deciding how to contribute to this global objective, in accordance with the *lex specialis*.[23] Some countries, due to their advanced technological capabilities and readily accessible raw critical materials, or average temperature and other factors, are able to implement costly renewable energy projects, involving solar and wind. Other countries reliant on the abundance of natural resources to provide a decent standard of living and address poverty domestically, have introduced technologies to decarbonize the exploration and extraction of such sources like oil or gas, through carbon dioxide removal (CDR), including DAC,[24] as well as other natural remedies like afforestation and re-

[21] UNFCCC Article 3(1) & the Paris Agreement (art. 2(2)).
[22] Articles 2 of the UNFCCC and 2 & 4 of the Paris Agreement.
[23] Article 2(2) of the Paris Agreement provides, "*This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances*." Also see Article 3(4) of the UNFCCC.
[24] This process entails removing carbon dioxide (CO2) emissions, a major GHG, right from the atmosphere. 2023 World Oil Outlook 2045 at p. 232; Pete Smith et. al., Chapter 7: Bridging the Gap – Carbon Dioxide Removal in the Emissions Gap Report 2017 : A UN Environment Synthesis Report pp. 58-66, available at: https://digitallibrary.un.org/record/3894804?ln=en&v=pdf

forestation[25]. Other approaches towards GHG emissions consist of CCUS, in which emissions are captured directly from their source (e.g. steel or power plant) before they enter the atmosphere,[26] in addition to other elements under the Circular Carbon Economy.[27] Methods like these not only help limit further emissions, but also contribute to the removal of the great amounts present in the atmosphere since the industrial era.[28]

33. OPEC Member Countries, as many other States, have successfully integrated both approaches of increasing renewable sources of energy while seeking to reduce and remove emissions for renewables lifecycle as well as traditional sources. The ultimate end goal of addressing emissions is only reached by deploying both approaches, because development needs energy and energy relies on traditional energy sources at this moment. This is what the common but differentiated responsibilities principle enshrined in the UNFCCC, Kyoto Protocol and Paris Agreement provide for as the flexibility needed to utilize the different strengths of the whole international community members.

34. There is no single mechanism called for in these international agreements to limit GHG emissions. . This is the consensus reached by States. That is, regardless of the means, States strive to collectively limit global temperatures to well below 2 Degrees Celsius above pre-industrial levels.[29] That, in turn, means that States, individually, over time, work towards lowering their GHG emissions, each within their respective capabilities and different contributions.

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[25] Afforestation and re-forestation would allow for the storage of CO2 emissions in newly planted or re-planted trees. U.S. Department of Energy: Office of Fossil Energy and Carbon Management, Carbon Dioxide Removal: Factsheet, March 2023, available at: https://www.energy.gov/sites/default/files/2023-03/2023march9-CDRfactsheet.pdf

[26] UNFCCC-KCI. 2023. *Impacts of Emerging Industries and Businesses: Hydrogen, Carbon Capture, Utilization and Storage, and Artificial Intelligence*. Bonn: UNFCCC at pp. 25-32. Available at https://unfccc.int/documents/624596

[27] The concept of the Circular Carbon Economy is a holistic approach to managing emissions that promotes the reduction, reuse, recycling, and removal of carbon (the '4Rs' principle). It is designed to be a balanced and pragmatic approach to reducing emissions. The dimensions of the approach include: reducing the level of emissions entering the system utilizing fuels with a lower environmental footprint and energy efficiency; reusing and converting emissions into useful industrial feedstock without chemically altering carbon (e.g. CCU); recycling emissions to create new value-add products by chemically altering carbon through decomposition, combustion and also natural processes (e.g. biofuels and blue hydrogen); and removing emissions from the system through natural sinks, CCS and DAC. It is thus "an extension of the idea of a circular economy, but its focus is on energy and carbon flows while implicitly retaining the material, energy, water and economic flows of the circular economy". CCE Guide Overview: A Guide to the Circular Carbon Economy (CCE) (King Abdullah Petroleum Studies and Research Center, August 2020), available at: https://www.cceguide.org/guide/ 2023 World Oil Outlook 2045 at p. 244

[28] 2023 World Oil Outlook 2045 at p. 229.

[29] This State collaboration is reflected in the Preamble of the UNFCCC providing, "*Acknowledging that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions.*"

35. The need for a flexible approach is evident when considering both the energy policies of Paris Agreement Parties and their NDCs. This flexibility is an immediate reflection of the first climate change principle codified in Article 3(1) of the UNFCCC: "*The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof*."[30] Multiple countries, both Annex I and non-Annex I to the UNFCCC Countries, are pursuing the Paris Agreement objectives using a diverse range of approaches and combinations, precisely according to their capabilities and circumstances. Several examples are listed below.

36. The United States is undergoing a gradual refinement of its energy policies and climate change regulations, evident in initiatives such as the Infrastructure Investment and Jobs Act and Inflation Reduction Act (IRA). The IRA act allocates $370 billion for energy security and climate change, offering financial incentives, primarily through tax credits, to promote innovation and the adoption of clean energy technologies. The IRA aims to enhance energy efficiency, facilitate a transition to renewable energy sources, and reduce cost barriers. Additionally, the IRA supports tax incentives for emission reduction technologies like CCUS and green hydrogen. The Federal Sustainability Plan aligns with broader climate goals, targeting a 65% reduction in greenhouse gas emissions by 2030 and achieving net-zero by 2050, with a focus on emissions-free electricity generation and reductions in CO2 emissions from buildings. In the oil and gas sector, the U.S. administration temporarily halted leasing in 2021, citing environmental concerns, but lifted the ban in 2022. The US Methane Emission Reduction Act is addressing methane emissions, particularly in the oil and gas sector, aiming for a 65% reduction by 2025 through revised performance standards and regulations governing well closures to control emissions.[31]

37. The European Union Green Deal employs various policy mechanisms, including quantitative targets for renewable energy in the energy mix, which increased from 40% to 45% by 2030 with the introduction of the REPowerEU plan in 2022. The 'Fit for 55' package, released in 2021, aims for a 55% reduction in GHG emissions by 2030, resulting in significant changes in EU energy policies, particularly in the transportation sector. Recent agreements, such as the ReFuelEU Aviation proposal, mandate the use of Sustainable Aviation Fuels (SAF) and Power-to-Liquid fuels, progressively increasing their share in the fuel mix by 2050. Stricter performance standards for new vehicles support the shift to electric vehicles, with a 55% reduction in CO2 emissions for new cars and a 50% reduction for new vans from 2030 to 2034. Italy has also sought modifications to EU directives on building energy efficiency and the phase-out of

[30] *See* Article 3(1) of the UNFCCC (emphasis added).
[31] 2023 World Oil Outlook 2045 at pp. 238-239

combustion engine cars.[32] In the Net Zero Industry Act, the EU Commission has proposed that at least 50 million tonnes of CO2 per year can be stored geologically by 2030. Modelling results for the EU's 2040 climate target Communication indicate that approximately 280 million tonnes would have to be captured by 2040 and around 450 million tonnes by 2050.[33]

38. China, under its 14th Five-Year Plan (FYP) on Modern Energy Systems, emphasizes economic growth and energy priorities. The government aims for a 5% GDP growth and a recovery in energy consumption while limiting coal-to-gas switching. The '1+N' carbon peaking and carbon policy framework outlines top-down policy implementation, detailing regional action plans to achieve climate goals. Key policies include stringent controls on energy efficiency, retrofitting coal-fired power plants, and supporting green industrial development. China anticipates a significant increase in non-fossil fuel energy use, targeting a market share of 25.6% by 2030. Energy and carbon intensity are expected to drop, with carbon intensity declining by 65% from 2005 levels by 2030. The plan emphasizes new-type energy storage development, aiming for large-scale deployment by 2025 and full operationalization by 2030. Pump storage capacity is projected to double by 2025, reaching 412 GW by 2035. The government has drafted a blueprint for a new power system development, and the Ulanqab-Beijing hydrogen demonstrator pipeline, launched in January 2023, aims to facilitate large-scale deliveries of green hydrogen over a 400-kilometer route, initially transporting 100,000 tonnes per year, with plans to expand to 500,000 tons per year.[34]

39. At COP27 in Sharm El-Sheikh, India reaffirmed its commitment to achieving net-zero emissions by 2070 and outlined specific targets, including deriving 50% of its cumulative installed electric power capacity from clean energy sources. By 2030, India aims to reduce the emission intensity of GDP by 45% below 2005 levels. The country submitted a comprehensive long-term low emission development strategy (LT-LEDS) to the UNFCCC, emphasizing pathways like low-emission electricity systems, sustainable urbanization, and efficient low-emission industrial systems. India's LT-LEDS is supported by policy proposals in areas such as urban planning, energy efficiency, electric vehicles, and recycling. The government emphasized international cooperation on technology transfer to support non-Annex I to the UNFCCC Countries. In February 2023, India allocated over US$8 billion in its budget for clean energy projects, including green hydrogen and renewables, with an additional US$4.3 billion dedicated to achieving its 2070 net-zero goal. The National Electricity Plan 2023

[32] Ibid pp. 239-240.
[33] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Towards an ambitious Industrial Carbon Management for the EU (European Commission Doc. COM(2024) 62 final, 6 February 2024), available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52024DC0062
[34] 2023 World Oil Outlook 2045 pp. 240-241

projects a significant increase in non-fossil based generation capacity, reaching 57.4% by the end of 2027 and 68.4% by the end of 2032.[35]

40. The Russian Federation's 'Reduced GHG Socio-economic Development Strategy until 2050,' adopted in October 2021, serves as a crucial document for implementing its commitments under the Paris Agreement. With the main objective of achieving carbon neutrality by 2060, the strategy incorporates technological, financial, and fiscal policy measures to drive economic renewal while reducing greenhouse gas emissions. These measures encompass carbon pricing mechanisms, GHG quota systems, regulatory requirements for low-emission technologies, and adjustments to the mineral extraction tax. However, Russia's ability to realize these climate goals is significantly influenced by its capacity to address and adapt to the impacts of sanctions. [36]

41. The United Kingdom's Government has implemented various policies and strategies to ensure energy security, diversify energy sources, and meet Paris Agreement targets. The Energy Security Strategy, introduced in April 2022, aims to reduce dependency on imported fossil fuels and achieve net-zero emissions by 2050. Emphasizing the use of North Sea resources, the government granted 100 new oil and gas licenses in July 2023 and promoted hydrogen as an alternative to natural gas. Carbon pricing policies, such as the Carbon Price Support (CPS) and the UK Emissions Trading Scheme (UK ETS), were implemented in 2022 to incentivize low-emission energy sources. The UK also proposed a carbon border tax, akin to the EU's CBAM, to impose tariffs on goods based on carbon content, expected to be implemented in the mid-2020s. In response to high gas prices, the government enacted the Energy Profits Levy Act in May 2022, increasing taxes on energy companies and substantially reducing profits in the oil and gas sector. The Act also adjusted the investment allowance, favoring emission reduction efforts.[37] The UK government has a target to capture and store 20–30 MtCO2 (including removals) per year by 2030.[38]

42. Brazil is committed to reducing greenhouse gas (GHG) emissions by 50% by 2030 compared to 2005 levels and achieving carbon neutrality by 2050, as outlined in its NDC. The Ministry of Environment launched the National Zero Methane Program to stimulate the carbon market and promote sector agreements, particularly focusing on technology in biogas and biomethane operations to mitigate methane emissions. The Brazilian energy ministry updated its fuel pricing policy, emphasizing production costs over international price parity, with a $10.8 billion investment in refining, gas, power, and logistics, aiming to reduce fuel costs for consumers. The Brazilian National Bank

[35] 2023 World Oil Outlook 2045 pp. 241-242
[36] 2023 World Oil Outlook 2045 p. 242
[37] Ibid pp. 242-243
[38] CCUS Net Zero Investment Roadmap: Capturing Carbon and a Global Opportunity (Department of Energy Security and Net Zero, UK Government, April 2023), available at: https://assets.publishing.service.gov.uk/media/64a29b7d06179b00131ae94e/ccus-investment-roadmap.pdf

for Economic and Social Development is investing R$24 million to support renewable energy expansion, including biogas, wind, and solar projects. Government policies include subsidies for truck and taxi drivers and State tax breaks for ethanol producers to promote ethanol as a competitive fuel. Additionally, emissions standards for vehicles have been established, impacting new vehicles from 2022 and fully implemented by 2025.[39]

43. Several OPEC Member Countries have adopted different policies to address GHG emissions. Many of these countries, including Saudi Arabia and the United Arab Emirates (UAE), are also strategically positioning themselves in the emerging global hydrogen market. Saudi Arabia aims to lead in carbon-free hydrogen production, targeting 2.9 million tonnes per year (mt/y) by 2030 and 4 mt/y before 2035. The UAE established the Dubai Hydrogen Alliance to support a low-emission economy. The African Hydrogen Partnership, formed in May 2022, indicates growing interest in hydrogen across African nations. Algeria, in particular, presented a Hydrogen Development Roadmap, aiming to be a regional pioneer by producing 30 to 40 billion KW of hydrogen by 2040. Additionally, CCUS is gaining prominence as a holistic approach to managing emissions, with countries like Saudi Arabia making it a central element of their net-zero strategies and G20 leaders endorsing a Circular Carbon Economy at the 2020 summit in Riyadh. [40]

    Other technological solutions and renewable energy initiatives are also in place in these Countries. The Iraqi government has made efforts to outline the policies for the energy sector as part of the National Development Plan 2018-2022 and Iraq Vision 2030 (NDCs) and the Framework for their implementation.[41] Also making significant efforts for utilizing renewable energy as a reliable source of energy for power generation. The government of Kuwait has plans to reduce emissions along three paths, which are technical upgrades of oil and energy production, reduction in consumption through subsidy reform and promotion of a sustainable culture, and investments in renewables. Consequently, the government launched its third National Development Plan (KNDP) in 2019 that provides policy directives within eight core programs, including for the energy transition, for the next five years. Specifically addressing the transition to a sustainable energy system, KNDP in its 7th program, entitled “Build a livable and harmonious environment”, takes the Energy White Paper Strategy into consideration. Libya released through the Renewable Energy Authority of Libya a plan to achieve a 7% renewable energy share in the electric mix by 2020 and 10% by 2025. This would utilize the available renewable energy resources in the country.

[39] 2023 World Oil Outlook 2045 p. 243
[40] 2023 World Oil Outlook 2045 p. 248
[41] Robin Mills And Maryam Salman, Powering Iraq: Challenges facing the Electricity Sector in Iraq (October 2020), available at: https://library.fes.de/pdf-files/bueros/amman/16923.pdf

Other OPEC Member Countries like the Republic of Congo focus their emissions reductions on the waste, agriculture, forestry, and energy including transport sectors. Gabon also pledges to continue to act as a "net carbon sink" by maintaining its net carbon absorption of at least 100 million tCO2eq per year beyond 2050 with international support. Equatorial Guinea has been working closely with the United Nation Development Programme (UNDP) on the country's renewable energy policies and capacity strengthening of national institutions to ensure the country's NDC is in alignment with the United Nations Sustainable Development Goals. IR Iran has considerable potential for energy saving and CO2 emission reduction through efficiency improvement and renewable energy development. IR Iran's share of renewable energy has reached 35 % from wind energy, 43 % from solar energy, 10/5 % from small hydropower, 10/3 % from biomass energy, and 1 % from heat recovery energy, according to the official report of the Renewable Energy and Electricity Productivity Organization. Nigeria unveiled its Energy Transition Plan (ETP), which outlines the government's strategy for achieving the net-zero emissions energy target by 2060. According to the ETP, Nigeria is targeting significant emission reductions in 5 key sectors like the power, transportation, industry, cooking and the oil and gas sector. Venezuela is also investing in clean energy, recycling, improving energy and water usage as well as the inclusion of environmental issues in its national curriculum.

44. A flexible legal framework governing climate change mitigation and adaptation is therefore key for successful energy transitions: without it, energy transitions are not pragmatically possible. . Without it, core stakeholders already under-performing their climate financing pledges cannot begin to decarbonize their own economies, let alone support non-Annex I to the UNFCCC countries in doing the same. Non-Annex I to the UNFCCC countries should have an opportunity to participate in a decarbonized global economy – an opportunity consistent with the principles of equity and common but differentiated responsibility codified as the first climate principles by the UNFCCC in Article 3(1).[42]

C) <u>Sustainable Development in the UNFCCC & Paris Agreement:</u>

45. As mentioned above, the fact that the UNFCCC and Paris Agreement address climate change in a way that is consistent with and promotes sustainable development must be emphasized. The major aim of the Paris Agreement to strengthen the global response to the threat of climate change is addressed "*in the context of sustainable development and efforts to eradicate poverty*." The Agreement, along with the Kyoto Protocol and UNFCCC, are not to be viewed as instruments to solely address climate change. Its object and purpose allow countries to achieve development while addressing the impacts of policies on the climate system and climate change effects on its development necessities. Climate change policies are thus an instrument of development, which should not be hindered or derailed.

[42] Article 3(1) of the UNFCCC.

46. Balancing the national development needs with limiting anthropogenic GHG emissions is adhering to the text of the UNFCCC, Kyoto Protocol and Paris Agreement.[43] This is another concrete way to apply the common but differentiated responsibilities and differing national circumstances principles. All States need time and resources to adjust in a sustainable manner that addresses anthropogenic GHG emissions while preventing the exacerbation of other problems like poverty.

47. Development needs are so critical for States that they are integrated as part of the aim and object of the special rules applicable to anthropogenic GHG emissions. The UNFCCC affirms in its Preamble, "*that responses to climate change should be coordinated with social and economic development in an integrated manner with a view to avoiding adverse impacts on the latter, taking into full account the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty*."

48. These tradeoffs are the very concerns that many non-Annex I to the UNFCCC Countries including OPEC Member Countries face in their adaptation to climate change given the significance of natural resources to their economies.[44] The implementation of obligations of States regarding climate change accordingly cannot fall under one common category. It varies depending on the State, whether it is Annex I or non-Annex I to the UNFCCC Countries, and as deemed fit by each State. The obligations are "*country driven*" as illustrated in the examples above.[45]

49. Whereas States endeavor to address climate change impacts from anthropogenic GHG emissions, non-Annex I to the UNFCCC Countries around the world are still fighting to secure their basic daily needs of cooking oil and electricity.[46] The UN estimates that in 2021, 675 million people lack access to electricity, mostly from least developed

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[43] *See* Preambles of the UNFCCC and Paris Agreement. Further, the COP's Report on the Durban Platform for Enhanced Action stressed:

> *Reaffirming that social and economic development and poverty eradication are the first and overriding priorities of developing country Parties, and that a low-emission development strategy is central to sustainable development, and that the share of global emissions originating in developing countries will grow to meet their social and development needs.*

Report of the Conference of the Parties on its Seventeenth Session, held in Durban from 28 November to 11 December 2011, Decisions adopted by the Conference of the Parties, Decision 1/CP.17: Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action, 11 December 2011.

[44] These difficulties are expressly recognized by the UNFCCC providing in its Preamble, "*Recognizing the special difficulties of those countries, especially developing countries, whose economies are particularly dependent on fossil fuel production, use and exportation, as a consequence of action taken on limiting greenhouse gas emissions*." Also see arts. 4(8)(h)& 4(10).

[45] Article 7(5) of the Paris Agreement.

[46] The Sustainable Development Goals 2023: Special Edition Towards a Rescue Plan for People and Planet at 26 (UN Publication, 2023) available at: https://unstats.un.org/sdgs/report/2023/The-Sustainable-Development-Goals-Report-2023.pdf

countries.[47] This figure is expected to continue through 2030, thus jeopardizing these populations' attainment of high education levels, adequate healthcare, agricultural development, business and job opportunities that can only be secured with energy.[48]

50. These countries similarly expect a rise in energy consumption to meet their current and future development needs, just as Annex I to the UNFCCC Countries have benefited from for centuries.[49] This immediate need cannot be fulfilled by a restricted energy mix, relatively small portion of the global energy mix,[50] but rather to exploit all affordable sources possible for an inclusive transition that does not leave even more victims stranded behind. The achievement of UN SDG Goal 7 requires "*Ensur(ing) access to affordable, reliable, sustainable and modern energy for all*".[51] These increasing development needs necessitate applying the very flexibilities of the UNFCCC and Paris Agreement provisions to allow for all sources of energy to be utilized while observing climate change goals. These instruments do not restrict energy sources that can achieve their objectives. The interplay of these different

[47] The Sustainable Development Goals 2023: Special Edition Towards a Rescue Plan for People and Planet at 26 (UN Publication, 2023) available at: https://unstats.un.org/sdgs/report/2023/The-Sustainable-Development-Goals-Report-2023.pdf

[48] The Sustainable Development Goals 2023: Special Edition Towards a Rescue Plan for People and Planet at 26 (UN Publication, 2023) available at: https://unstats.un.org/sdgs/report/2023/The-Sustainable-Development-Goals-Report-2023.pdf

[49] 2023 World Oil Outlook 2045 at pp. 49-51, & 84

[50] 2023 World Oil Outlook 2045 at pp. 49-51; Shaping a living Roadmap for Energy Transition: A Report by the International Energy Forum and S&P Global Commodity Insights at pp. 9-10, 14, 24, 29-45 (GESI, August 2023).

[51] The Addis Ababa Agenda embraced the necessary flexibility to encompass the sustainable supply of energy from different sources for all when reading the SDGs, by providing:

> *We will promote both public and private investment in energy infrastructure and clean energy technologies including carbon capture and storage technologies. We will substantially increase the share of renewable energy and double the global rate of energy efficiency and conservation, with the aim of ensuring universal access to affordable, reliable modern and sustainable energy services for all by 2030. We will enhance international cooperation to provide adequate support and facilitate access to clean energy research and technology, expand infrastructure and upgrade technology for supplying modern and sustainable energy services to all developing countries, in particular least developed countries and small island developing States*

Addis Ababa Action Agenda of the Third International Conference on Financing for Development, adopted at the Third International Conference on Financing for Development (Addis Ababa, Ethiopia, 13–16 July 2015) and endorsed by the General Assembly in its resolution 69/313, 27 July, 2015 at para 49, *available* at: https://sustainabledevelopment.un.org/content/documents/2051AAAA_Outcome.pdf [hereinafter Addis Ababa Agenda]. A similar approach was adopted previously by the Monterrey Consensus in its attempt to implement the Millennium Development Goals, the predecessors of the UN SDGs in a broader context though. See Monterrey Consensus of the International Conference on Financing for Development, The final text of agreements and commitments adopted at the International Conference on Financing for Development Monterrey, Mexico, 18-22 March 2002 at pp.5-6, *available* at: https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.198_11.pdf

factors is ultimately exemplified by the energy trilemma of energy security, equity (accessibility and affordability), and sustainability.

51. The global population is expected to expand by around 1.5 billion from nearly eight billion in 2022 to about 9.5 billion by 2045. This will be driven by strong population growth in the Middle East & Africa and other Asian countries. The global working-age population (aged between 15–64) is set to increase globally by 826 million over the forecast period, while the global urbanization rate is anticipated to rise from 57% in 2022 to 66% by 2045. (*See Figure 3*) This growth correlates with a rise in energy demand, especially in non-Annex I to the UNFCCC Countries. (*See Figure 4*)

Figure 3: World Population Trends, 1990-2045

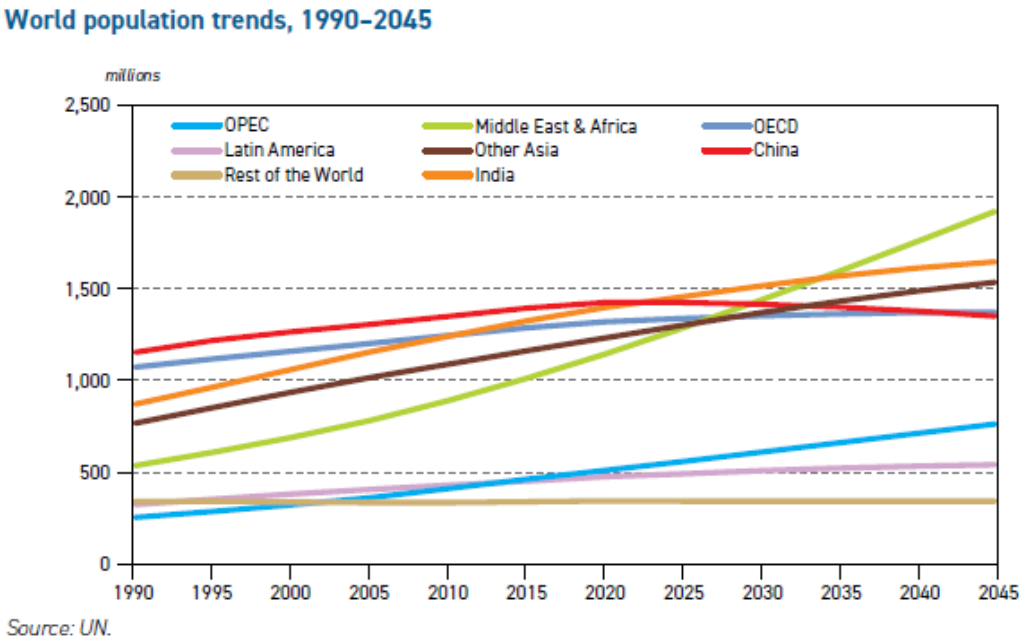

Figure 4: Total Primary Energy Demand by Region, 2022-2045

Total primary energy demand by region, 2022–2045

	Levels mboe/d						Growth mboe/d	Growth % p.a.	Share %	
	2022	2025	2030	2035	2040	2045	2022–2045	2022–2045	2022	2045
OECD Americas	55.4	55.4	56.4	56.6	56.4	55.9	0.5	0.0	19.0	15.6
OECD Europe	33.7	34.0	33.9	33.4	32.7	32.0	-1.7	-0.2	11.6	8.9
OECD Asia-Pacific	17.5	17.7	17.9	18.0	18.0	18.0	0.5	0.1	6.0	5.0
OECD	**106.6**	**107.1**	**108.2**	**108.0**	**107.1**	**105.9**	**-0.7**	**0.0**	**36.7**	**29.5**
China	71.3	75.2	78.1	78.7	78.1	77.4	6.1	0.4	24.5	21.6
India	19.2	21.3	25.4	29.7	34.1	38.5	19.3	3.1	6.6	10.7
OPEC	20.3	22.8	26.4	29.6	32.6	34.7	14.4	2.4	7.0	9.7
Other DCs	50.3	54.2	61.1	68.2	75.0	77.1	26.8	1.9	17.3	21.5
Russia	15.7	15.5	15.4	15.3	15.2	15.2	-0.5	-0.1	5.4	4.2
Other Eurasia	7.5	7.8	8.3	8.9	9.5	10.4	2.9	1.4	2.6	2.9
Non-OECD	**184.3**	**196.8**	**214.7**	**230.3**	**244.5**	**253.3**	**69.0**	**1.4**	**63.3**	**70.5**
World	**290.9**	**303.9**	**322.9**	**338.3**	**351.6**	**359.2**	**68.3**	**0.9**	**100.0**	**100.0**

Source: OPEC

DC= developing countries
Mboe/d= million barrels of oil equivalent per day

52. Energy demand increases precisely because many of the chief means to fight climate change depend upon electricity. To provide just a single example, droughts frequently coincide with heatwaves. Heat can create oppressive work conditions. Just as importantly, heat demonstrably affects the ability of school-age children to learn. Finally, heat is physiologically stressful, particularly for the elderly and those suffering from cardiovascular and other illnesses. The simplest way to adapt to heat is to introduce air conditioning into schools, hospitals, and workplaces. Air conditioning is energy intensive and runs on electricity. Its increased use is a direct consequence of adaptation measures to climate change. The increase in energy consumption therefore is a matter of continuing to live a dignified life in ever more challenging climate contexts, which is the purpose of the adaptation efforts as stated in the *lex specialis regime*.

53. This growth in both population, and consequently, demand for energy thus must be met by an adequate and reliable supply of all energy sources. Without such supply, the needs of the growing non-Annex I to the UNFCCC Countries will not be fulfilled. This necessitates investment in all forms of energy and low emission technologies such as CCUS and DAC.

54. States rely on locally available feedstock of energy sources to ensure daily needs are met. Thus, reliance on lower GHG emission sources such as nuclear or hydropower energy in some instance is confronted with sudden events like droughts that significantly reduce the amount of electricity generated by these sources. These droughts can deprive nuclear power plants of water needed to cool reactors leading to these plants being unable to produce electricity at their normal rate. Similarly,

droughts could cause low inflow of water into hydropower reservoirs, materially lowering electricity production from hydropower. These shortcomings must be flexibly made up for through the supply of other energy sources to sustain normal life. Countries will differ in their approach towards securing alternative energy sources. Any rigid or prescriptive approach to energy transitions therefore would undermine the ability of States to effectively respond to energy shortfalls in times of significant stress.

55. There are multiple examples, both for Annex I and non-Annex I to the UNFCCC countries that reflect the struggles that sovereign States must overcome to satisfy their fully-justified energy needs. In many of those cases, there is inevitable tension between aspirations to achieve GHG emissions reduction targets and the need to secure heat, transportation and electricity for their citizens, at acceptable standards and prices. The challenge faced, while complicated for Annex I to the UNFCCC Countries, poses substantially elevated challenges for energy-poor, non-Annex I to the UNFCCC Countries. To solve this tension satisfactorily, flexibility in the special treaty regime was essential.

56. The situation of embracing the needs of all peoples is foreseen by the UNFCCC with the aim of meeting them where "*all countries, especially developing countries, need access to resources required to achieve sustainable social and economic development and that, in order for developing countries to progress towards that goal, their energy consumption will need to grow.*"[52]

57. To realistically sustain current livelihoods and prevent disruptions, all forms of energy are needed.[53] OPEC's WOO sees that the share of renewable energy in the global energy mix is expected to increase from around 2.7% in 2022 to 11.7% in 2045. Natural gas demand is expected to increase by 20 million barrels of oil equivalent per day (mboe/d) over the outlook period, reaching 87 mboe/d in 2045, with its share in the energy mix reaching 24.2%. Oil demand is projected to increase by 15.4 mboe/d in the outlook period, rising from 90.7 mboe/d to 106.1 mboe/d in 2045. Oil's share in the energy mix is set to drop from 31.2% in 2022 to 29.5% in 2045. Demand for nuclear energy is set to increase from 15 mboe/d in 2022 to 23.8 mboe/d in 2045, an increase of nearly 9 mboe/d. An increase is expected for biomass with total demand reaching 35.2 mboe/d. Hydropower demand is set to grow by around 2.8 mboe/d and reach 10.5 mboe/d in 2045.[54]

58. Existing and future technologies will significantly contribute to shaping the future energy landscape and levels of GHG emissions:

[52] Preamble of the UNFCCC.
[53] There is no scientific and technical evidence that supports the scenario of a seamless complete transformation towards renewable energy as the only energy system.
[54] 2023 World Oil Outlook 2045 at pp. 49-51, & 84

- While coal-fired power plants have become more efficient, they still contribute to high CO2 emissions. Gas, particularly in combined-cycle power plants, has seen a significant increase in recent years, with the utilization of waste heat for urban heating. Oil has a limited role in power generation, mainly serving as a contingency option in specific situations.

- Nuclear power is expected to gain momentum with advancements in modular reactors, thorium utilization, and breeding technologies. However, the short-term impact is constrained by the lengthy planning and commissioning timeline for nuclear plants.

  Renewables, specifically wind and solar, have become more competitive due to subsidies and support, achieving cost parity with fossil power generation in favorable locations. Wind and solar already hold a substantial share in power generation in regions like Europe, the US, and China. The WOO suggests a continued expansion of renewables, gradually displacing coal, although coal may persist in some regions due to existing and future development plans. Challenges remain as to the real costs of integrating renewable energy systems in the energy mix.
- Hydrogen is perceived as a possible solution in the context of energy transitions, playing the role of an energy carrier.[55]

59. Renewable and traditional energy sources are complexly intertwined in addressing GHG emissions. The technology that powers renewable sources of energy often requires petroleum derived products to function.[56] A wind turbine is typically made of steel (approximately 66%-79% of total turbine mass); fibreglass, resin or plastic (11-15%); iron or cast iron (5-17%); copper (1%) and aluminum (0-2%). Fibreglass, resin and plastic are all petroleum-derived products.[57] They are essential for the composition of a wind turbine and as of yet, cannot be substituted for this purpose at scale. These turbines cannot thus be achieved without these vital petroleum end-use products. Similarly, for solar panels, taking a typical crystalline silicon solar panel as an example is approximately 76% glass, 10% plastic polymer, 8% aluminum, 5% silicon, 1% copper, and less than 0.1% silver and other metals.[58] Petrochemical products like ethylene are used in copolymers that cover the photovoltaics. Various other examples

[55] 2023 World Oil Outlook 2045 at pp. 42-44 & 75

[56] Ed Conway, *Material World: A Substantial Story of Our Past and Future,* p. 433 (WH Allen, 2023).

[57] Christopher Mone, Maureen Hand, Mark Bolinger, Joseph Rand, Donna Heimiller, & Jonathan Ho, 2015 Cost of Wind Energy Review at p. 65, Table 30 (National Renewable Energy Laboratory Report, Revised May 2017); What materials are used to make wind turbines?, US Geological Survey, available at: https://www.usgs.gov/faqs/what-materials-are-used-make-wind-turbines

[58] Dominish, E., Florin, N. and Teske, S., 2019, Responsible Minerals Sourcing for Renewable Energy. Report prepared for Earthworks by the Institute for Sustainable Futures, University of Technology Sydney at p. 11. How Are Solar Panels Made?, 19, October 2022, Union of Concerned Scientists, available at: https://blog.ucsusa.org/charlie-hoffs/how-are-solar-panels-made/

can be drawn to reflect this interrelationship that necessitates an energy mix to sustain livelihoods.

60. Exclusively focusing on mitigating climate change based on other narrow interpretations while neglecting these needs is incompatible with the special legal regime established by the UNFCCC, Kyoto Protocol and Paris Agreement applicable to anthropogenic GHG emissions. The language of Article 2(1) of the Paris Agreement is clear in considering that addressing climate change through implementing this Agreement and reaching its objectives is to be done "*in the context of sustainable development and efforts to eradicate poverty*."

CHAPTER IV
OBLIGATIONS OF STATES WITH REGARDS TO CLIMATE CHANGE

61. Based on the context provided above, this Chapter explicitly addresses the first question presented to the Court:

> *(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?*

A) Sources of Obligations: The *Lex Specialis* Regime

62. Obligations of States under international law to protect the climate system and other parts of the environment from anthropogenic GHG emissions are expressly outlined in the climate change treaty regime of the UNFCCC, Kyoto Protocol, and Paris Agreement (*lex specialis*). These instrument are "*self-contained*" in their holistic governance of anthropogenic GHG emissions.[59]

63. Anthropogenic GHG emissions are the subject matter of a complex international governance system of the *lex specialis* that aims at strengthening the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty. This system instilled the necessary flexibility for different States to achieve their climate change objectives, which, if restricted, will cause the collapse of a system that corresponds with the different realities of parties in their circumstances and capacities to reduce GHG emissions and financially contribute to that endeavor. This system embraces the difficulties of disassociating from historical contributions of GHG emissions and differences amongst countries in their means to help address this global problem through cooperation, financial resources and capacity building.

B) Obligations for all States:

64. It is incumbent on all States under the *lex specialis* regime:

    a. Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve.[60] The obligations required of a State are publicly scrutinized by other State members of the Conference of

[59] Both the ICJ and PCIJ have highlighted their deference to self-contained treaties in *S.S. "Wimbledon"*, 1923, P.C.I.J., Series A, No. 1, p. 15, at pp. 23–24; *United States Diplomatic and Consular Staff in Tehran*, Judgment, I.C.J. Reports 1980, p. 3, at p. 40, para 86.

[60] Articles 4, 7, & 13 of the Paris Agreement, directly stating that State parties shall provide these NDCs.

Parties, the supreme decision-making body for the Kyoto Protocol, UNFCCC and the Paris Agreement.

b. An obligation of conduct on States, within the confinements of their NDCs as their source of contribution, to pursue domestic climate change measures and actions towards the aim of achieving the objectives of their NDCs. [61]

65. These carefully-crafted provisions of the Paris Agreement emphasizing domestically-led efforts and a bottom-up approach, contribute to the broader collective contributions from all States to jointly limit the rise in global temperatures and adapt accordingly.

66. As to the content of these NDCs, they were explicitly referred to as "contributions" and not "commitments" or "obligations". This is a clear and intentional choice by States to move away from the wording in a Kyoto Protocol selectively applicable Agreement to a more widespread global Agreement. Hence, whereas a Kyoto Protocol imposed on select Annex I to the UNFCCC Countries "commitments" with respect to GHG emissions levels, which were largely unfulfilled, the Paris Agreement did not adopt this term.[62] Instead it conveyed the international community of States' intent to adopt a more flexible State led standard to best address GHG emissions in the context of national circumstances. The ordinary meaning of the word "contribution" refers to a State's determination of its capacity to "give or supply" in order "to help achieve a particular purpose" or "help make it successful", which is to be read while taking into consideration the principles Stated in Article 2 of the Paris Agreement.[63] These contributions are thus individual State efforts working towards a collective aim. They are not to be read as self-standing obligations as a general rule in international law.

67. The importance of preserving flexibility for States to implement their obligations and achieve energy transition outcomes is firmly anchored in the climate change treaty regime. *First*, the Paris Agreement is premised on a sovereign choice of means of implementation of the Paris Agreement's goals. Article 4(1) of the Paris Agreement States that:

> *In order to achieve the long-term temperature goal set out in Article 2, Parties aim to […] undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis*

[61] Articles 4(2) & 7(9) of the Paris Agreement.
[62] See Article 3 & Annex B of the Kyoto Protocol. Kyoto Protocol to the United Nations Framework Convention on Climate Change, 2303 UNTS 148, 37 ILM 22 (1998), [2008] ATS 2, 3rd Session of the Conference of the Parties to the 1992 United Nations Framework Convention on Climate Change, 11 December 1997.
[63] See the word "contribute" in the Cambridge, Collins, and Merriam-Webster Dictionaries.

of equity, and in the context of sustainable development and efforts to eradicate poverty.[64]

Article 4(1) leaves it to the States Parties how to 'aim' to 'achieve the long-term temperature goal set out in Article 2.'[65] Article 4(1) leaves it to the States Parties how to 'balance' between 'emissions by source and removals by sinks.'[66] Article 4(1) leaves it to the States Parties how to 'undertake rapid reductions […] on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty."[67]

68. Given that Article 4(1) of the Paris Agreement leaves these functions of aiming, balancing, and undertaking on the basis of equity to the State Parties of the Paris Agreement, each State Party must have a sovereign choice of means. This choice of means is guided by climate change principles codified in the Paris Agreement. Yet, it must also take into account development principles. The sovereign choice of means therefore must be flexible to take into account the conditions faced by the relevant State Party. Article 4(1) is inconsistent with a rigid approach to energy transition and climate mitigation.[68]

69. Article 4(2) of the Paris Agreement then instrumentalizes this sovereign choice of means in the NDC mechanism. It requires that "[e]*ach Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve."*[69] The intent element makes clear that each sovereign has a choice of means, as it deems prudent, to adopt an energy policy that meets its individual sustainable development goals as well as the collective climate principle enshrined in Article 2(1)(a) of the Paris Agreement.[70]

70. Article 4(2) confirms this in its second sentence.[71] That sentence provides "*Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions*."[72] The aim is to achieve "*the objective of such contributions*."[73] The 'aim' of the contribution is set by each Party in good faith to adopt policies, including energy policies, that meet sustainable development imperatives and climate principles as discussed in the last paragraph.[74] The obligation of conduct laid out in Article 4(2) of the Paris Agreement therefore recognizes and protects the sovereign choice of means of climate policies and each States' equal sovereignty over its own

[64] Article 4(1) of the Paris Agreement.
[65] Ibid.
[66] Ibid.
[67] Ibid.
[68] Ibid.
[69] Article 4(2) sentence 1 of the Paris Agreement.
[70] Compare Article 4(2) sentence 1 and Article 2(1)(a) of the Paris Agreement.
[71] Article 4(2) sentence 2 of the Paris Agreement.
[72] Ibid.
[73] Ibid.
[74] Article 4(2) sentence 1 of the Paris Agreement.

energy systems and decisions. This equal sovereignty cannot be overridden by any rigid, external legal framework. Any such rigid framework would fail to achieve energy transitions outcomes.

71. Article 4(3) of the Paris Agreement is consistent with the sovereign choice of means.[75] It states that, "*Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances*."[76]

72. The first part of Article 4(3) of the Paris Agreement ending with "and" requires a progression.[77] Article 4(3) does not itself provide a referent for "progression" or define a specific end goal.[78] This progression therefore has to be interpreted by reference to the chapeau of Article 4, i.e., Article 4(1) of the Paris Agreement.[79] Article 4(1) provides that, "*Parties aim to reach global peaking of greenhouse gas emissions as soon as possible*" and to "*undertake thereafter rapid reductions* […] *on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.*"[80] It requires States to make a progression along the following considerations: (1) emissions reductions, (2) equity, and (3) sustainable development.[81]

73. The common denominator of these considerations defined in Article 4(1) and applicable by reference in Article 4(3) of the Paris Agreement is "sustainable development."[82] Any "progression" therefore needs to be informed by development rather than a mathematical progression of emission reduction.[83] This progression, in other words, is always viewed in light of its specific context and therefore must be flexible rather than rigid.

74. The second clause of Article 4(3) of the Paris Agreement confirms the same point.[84] It requires that successive NDCs of a Paris Agreement Party "*reflect its highest possible ambition*."[85] Again, Article 4(3) does not itself provide a measure of ambition.[86] As in the context of the first clause, the common measure of 'highest possible ambition' is

[75] Article 4(3) of the Paris Agreement.
[76] Ibid.
[77] Ibid.
[78] See ibid.
[79] Article 4(1) of the Paris Agreement.
[80] Ibid.
[81] Ibid.
[82] Ibid.
[83] Article 4(3) of the Paris Agreement.
[84] Ibid.
[85] Ibid.
[86] *See* ibid.

the context of "*sustainable development and efforts to eradicate poverty*" codified in Article 4(1) of the Paris Agreement.[87]

75. The definition of the Brundtland Report is helpful to understanding what Article 4(3) of the Paris Agreement intends. Thus, "*[h]umanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs*."[88] More specifically, the "*concept of sustainable development does imply limits - not absolute limits but limitations imposed by the present State of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities*."[89] Sustainable development therefore requires a flexible standard that is sensitive to the "present State of technology and social organization" as opposed to look to a single measure. The Brundtland Report goes on to state that "*technology and social organization can be both managed and improved to make way for a new era of economic growth*."[90] In fact, "*[t]he Commission believes that widespread poverty is no longer inevitable. Poverty is not only an evil in itself, but sustainable development requires meeting the basic needs of all and extending to all the opportunity to fulfil their aspirations for a better life. A world in which poverty is endemic will always be prone to ecological and other catastrophes*."[91]

76. Using the understanding of sustainable development as the measure of "*highest possible ambition*" looks to the ambition that secures current economic growth, poverty reduction and human capabilities in a manner that does not imperil the achievement of human flourishing in the future.[92] Ambition thus is context dependent and flexible. It does not trade the promise of human flourishing today against the promise of human flourishing in the future or vice versa. To that end, it must make pragmatic sense of how to answer current predicaments precisely as today's energy policies the world over intend to do.

77. This understanding is confirmed finally by the final clause of Article 4(3) of the Paris Agreement.[93] This final clause provides that any progression and ambition by a Paris Agreement Party in its NDC will "*reflect*[…] *its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances*."[94] Common but differentiated responsibilities and different national circumstances are of necessity flexible standards. Any progression and ambition

[87] Article 4(1) of the Paris Agreement.
[88] Gro Harlem Brundtland et al., Our Common Future (1987), Overview para 27, https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf.
[89] Ibid.
[90] Ibid.
[91] Ibid.
[92] *Compare* ibid. *with* Article 4(3) of the Paris Agreement.
[93] Article 4(3) of the Paris Agreement.
[94] Article 4(3) of the Paris Agreement.

therefore are not measured by a single yardstick but rather must be viewed holistically in light of the measure of development.

78. The Paris Agreement includes relevant factors to be considered for the obligation of conduct. Article 2 of the Paris Agreement provides that:

> *[t]his Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change*."[95]

The Paris Agreement provides goals to be reached collectively by all State parties. It does so while acknowledging "*the context of sustainable development and efforts to eradicate poverty.*"[96] These goals are implemented by means of Article 4 discussed above, i.e., the sovereign choice of means in the context of a flexible approach.[97]

79. An obligation of result cannot be applied to climate change or energy transitions. States do not have, and cannot have, an obligation to prevent climate change as such or the effects of climate change in the abstract. Such a conclusion would contradict the language of the Paris Agreement.

80. The Paris Agreement further outlines the standard for the obligation of conduct in requiring States to choose their own means to act against climate change outcomes by submitting NDCs.[98] These means adopted by a State must represent a progression "*reflect*[ing] *its highest possible ambition,* [as well as] *reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.*"[99] This reference to differentiated responsibilities and respective capabilities is expressly tied to the "*basis of equity, and in the context of sustainable development and efforts to eradicate poverty*."[100]

81. Cooperation and the principle of differentiated responsibility requires that non-Annex I to the UNFCCC States relying on fossil fuels to meet transportation and electricity generation needs have access to fossil fuel products to prevent the disastrous

[95] Article 2 of the Paris Agreement.
[96] Preamble of the Paris Agreement.
[97] Article 4 of the Paris Agreement.
[98] Article 4(2) of the Paris Agreement.
[99] Article 4(3) of the Paris Agreement.
[100] Article 4(1) of the Paris Agreement.

consequences if those States would have to significantly curtail access of their populations to transportation and electricity, due to an insufficient electrical grid to allow for electrification. To require anything to the contrary would exacerbate energy poverty due to insufficient electrification in especially Africa and Asia. These countries would now stand to limit the ability to generate electricity or transport persons, goods, and services within and between their territories if fossil fuels demand were somehow curtailed. Such a result cannot be reconciled with differentiated responsibility under the UNFCCC or the Paris Agreement. Consequently, both the demand for petroleum and the supply of that demand cannot run afoul of any obligation in the Paris Agreement.

82. In both the transportation and electricity context, the path forward lies in technology transfer, technology support, and finance of energy value chains capable of meeting the developmental needs of States according to their responsibility and capability. This means that States must be able to choose their own means to fulfil the Paris Agreement. This, in turn, means that the principle of prevention can only ever operationalize the consensus solution adopted by the family of nations in the Paris Agreement rather than contradicting or 'enhancing' it.

83. Any argument that directs this Court to do otherwise deprives non-Annex I to the UNFCCC Countries of the right to a fair distribution of the benefits of a globalized economy. This fair distribution requires non-Annex I to the UNFCCC Countries to rely on fossil fuels while they are trying to diversify their economies. Furthermore, any such argument would redistribute wealth from the Global South economic activity (activity that historically had very little to do with the stock of greenhouse gases) to the Global North due to the Global North's relative advantage in technology and capital (even though the Global North historically is the most important emitter of greenhouse gases.)

C) <u>Distinct Differentiated Obligations:</u>

84. The UNFCCC, Kyoto Protocol and Paris Agreement explicitly highlighted obligations from Annex I to the UNFCCC Countries to address anthropogenic GHG emissions. These countries "shall" mobilize the necessary financial resources and enable technology transfer that supports non-Annex I to the UNFCCC Countries in addressing the mitigation of these emissions and the adaptation to climate change accordingly.[101]

85. These separate and unique obligations from Annex I to the UNFCCC Countries correspond with the historical responsibility of these States for generating significantly higher cumulative levels of anthropogenic GHG emissions.[102]

[101] Articles 4(3-10) of the UNFCCC & 9-11 of the Paris Agreement.
[102] 2023 World Oil Outlook 2045 at pp. 80-81 (OPEC Secretariat Publication, October 2023).

D) <u>National Circumstances:</u>

86. The Paris Agreement recognizes that States contribute to its Article 2 goals based on their 'different national circumstances'. The ordinary meaning of the provisions of the Paris Agreement in light of its object and purpose emphasizes that addressing the main objectives of the Agreement in "*Holding the increase in the global average temperature to well below 2°C above pre-industrial levels*"; "*Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production*"; and "*Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development*" is a "*global response*".[103] The nature of this collective action is further highlighted in Article 3 of the Paris Agreement stressing, "As nationally determined contributions to the global response to climate change". This implies that substantively addressing anthropogenic GHG emissions is determined by each State party. Each State is to show it is exerting the necessary effort to reach the global aims of Article 2 through its NDCs, the limits of which depends on the level of development of the State.[104] This Statement is supported by reference to Article 4(4) of the Paris Agreement, which provides:

> *Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets. Developing country Parties should continue enhancing their mitigation efforts, and are encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances*.[105]

87. Furthermore, guided by the common but differentiated responsibilities and respective capabilities principles in light of national circumstances, the implementation of obligations of States differs. The negotiating history of the UNFCCC made it clear that these principles are to be consistently brought up when discussing the implementation of any obligations.[106] To measure the implementation of obligations of all States with the same legal standard would be incompatible with the consensus reached by States on addressing anthropogenic GHG emissions through various means and at different paces. These national circumstances bring to the forefront numerous considerations some States face in balancing lower GHG emissions with other global goals like development to "*eradicate poverty and end hunger*", which are paramount

[103] Article 2 of the Paris Agreement.
[104] Article 4(4) of the Paris Agreement.
[105] Similar language, albeit in a more general form, is used in Article 5(1) of the Paris Agreement where, "Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1 (d), of the Convention, including forests."
[106] *See* negotiating history of the UNFCCC in UN GA Res. 45/212 on the *Protection of Global Climate for Present and Future Generations of Mankind*, 45th Sess., 21 Dec. 1990, Resolutions adopted on the Reports of the Second Committee, at pp. 147-148.

in the Paris Agreement and the UNFCCC.[107] The text of the Paris Agreement expressly uses the term "*as appropriate*" when referring to State efforts to address climate change, such as where, "*Each 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*."[108]

E) Legal Sources not Applicable to the Special Regime on Anthropogenic GHG Emissions:

Outside the obligations established in the *lex specialis* regime applicable to this Advisory Opinion, principles like the precautionary principle or prevention of significant harm or damage or taking the necessary due diligence however they may have evolved in international law, have no application as sources of additional separate obligations applicable to State conduct regarding anthropogenic GHG emissions.

88. The text of the UNFCCC and the Paris Agreement confirm the same point. Some of these principles such as the precautionary or prevention principles have been included in the text of the UNFCCC, the outcome of years of discussions. This text made clear distinctions between:

a) "commitments" that States undertake, which incorporate obligations including the submission of NDCs; and

b) Guiding "principles" that cannot be construed as forming separate obligations themselves.[109]

[107] Preamble and Article 4 of the Paris Agreement. As in UN Human Rights Council Res. A/HRC/RES/50/9:

> *As Stated in the United Nations Framework Convention on Climate Change, responses to climate change should be coordinated with social and economic development in an integrated manner with a view to avoiding an adverse impact on the latter, taking into full account the legitimate priority needs of developing countries to achieve sustained economic growth, eradicate poverty and end hunger.*

UN Human Rights Council Res. A/HRC/RES/50/9, 50th Sess., 14 July 2022 on Human rights and Climate Change.

[108] See Articles 5(1-2), 7(5)&(9-11) of the Paris Agreement.

[109] Articles 3 & 4 of the UNFCCC.

Additionally, the use of the term "shall" is not interchangeable with "should" or "will".[110] The ordinary meaning of the term "guide" as in Article 3 of the UNFCCC implies no compulsory act on the guided party.[111]

89. Furthermore, even these guiding principles are qualified in each instance of their reference in the UNFCCC by country circumstantial elements. A State's endeavor to protect the climate system for the benefit of present and future generations is to be "*on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities*". State Parties' considerations in taking precautionary measures should be "*cost-effective*", "*taking into account different socio-economic contexts*", and "*should be appropriate for the specific conditions of each Party*", "*integrated with national development programmes*", "*taking into account that economic development is essential for adopting measures to address climate change*". All these qualifications serve to affirm the flexibility needed for States to address climate change on a global level.[112]

90. This same manner of qualification was sustained in the Paris Agreement, as reflected in the UNFCCC, by subjecting all actions and efforts taken to address the objectives of climate change mitigation and adaptation to the context of the different development needs of States.

F) <u>State Obligations towards Individuals and Peoples:</u>

91. States provide essential services for their citizens to enjoy an adequate standard of living and strive to further raise this wellbeing. Many States, including OPEC Member

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[110] *See* for example WTO case *United States — Measures Affecting the Importation of Animals, Meat and Other Animal Products from Argentina* in para 7.403. The Panel provides:

> *The SPS Agreement [Agreement on the Application of Sanitary and Phytosanitary Measures] contains five instances of the use the word "should", whereas the word "shall" is used 37 times, illustrating to us that the use of "should" as opposed to "shall" in any particular provision of this Agreement was a deliberate choice. Moreover, the word "shall" appears in Article 5.51008 and Article 5.61009 – provisions immediately following Article 5.4 and also dealing with the ALOP [Adverse Effects on the Long-Term Conservation of the Resource]. The decision of the negotiators to use the word "should" in Article 5.4 and then "shall" in Articles 5.5 and 5.6 must be given meaning. We consider that to impart the word "should" in this context with other than an exhortative meaning would frustrate the intention of the negotiators of the SPS Agreement and could result in the Panel adding to the rights and obligations provided in the covered agreements, contrary to the requirements of Article 3.2 of the DSU.*

DS447: *United States — Measures Affecting the Importation of Animals, Meat and Other Animal Products from Argentina*, WTO Panel Report, No. WT/DS447/R, 24 July 2015, at para 7.403.

[111] The Merriam-Webster Dictionary associates the word "guide" with "directing in a way or course" or to "influence".

[112] See Preamble of the UNFCCC.

Countries, have taken such domestic initiatives within their sustainable development policies.[113]

92. Rules that demand what is beyond what the UNFCCC, Kyoto Protocol and Paris Agreement called for in States' international cooperation to address global anthropogenic GHG emissions and its ultimate effect on existing individual rights would infringe on State sovereignty and the consensus reached by States. Imposing new obligations on States would also run contrary to the sovereignty of States for accepting obligations and contravenes with the objective of this UN General Assembly request for an Advisory Opinion to shed light on existing obligations.

93. Furthermore, to account for the source of anthropogenic GHG emissions wherever that may be, given its numerous present and historical contributors, and the direct victimhood of any given individual or group's right, would be impossible in terms of attributing responsibility to a single State to address.[114] This is why addressing emissions requires a special regime that considers its intricacies. Referring to existing domestic and regional case law related to other areas of the environment and attempting to extend it to climate change is not helpful or constructive.

94. The ordinary wording of the UNFCCC, Kyoto Protocol and Paris Agreement text, backed by widespread State consent, current and previous scientific and technical knowledge, are all justifications inviting the Court in this Advisory Opinion to embrace this needed flexibility amongst States to address the global challenge of climate change. Obligations of States should not be expanded to beyond the previously highlighted obligations as in the special international rules governing climate change in the three Agreements. Restricting States otherwise may have reverse repercussions

[113] Examples of these initiatives include: Saudi Arabia's Voluntary National Review 2023, available at: VNR 2023 Saudi Arabia Report.pdf (un.org), e.g. p. 11; The United Arab Emirate's Voluntary National Review 2022, available at: VNR 2022 UAE Report.pdf (un.org), e.g. p. 41; Kuwait's Second Voluntary National Review Report, available at: VNR 2023 Kuwait Report.pdf (un.org), e.g. p. 23; Algeria's Voluntary National Review 2019, available at 23441MAE_rapport_2019_complet.pdf (un.org), e.g. p. 39; Equatorial Guinea's National Voluntary Review 2022, available at: VNR 2022 Equatorial Guinea Report.pdf (un.org), e.g. p.32; Gabon's National Voluntary Review 2022, available at: Microsoft Word - Rapport VNR Version Finale du O9062022[2].docx (un.org), e.g. p. 12; The Islamic Republic of Iran's National Voluntary Review 2017, available at: 14994Iran.pdf (un.org), e.g. p. 1; Iraq's National Voluntary Review 2021, available at: Microsoft Word - VNR Iraq 2021 English Final Version_June302021, e.g. p. 46; Libya's National Voluntary Review 2021, available at: Microsoft Word - Libya Main Message of VNR (690 Arabic) (un.org), e.g. p. 2; Nigeria's National Voluntary Review 2020, available at: 26309VNR_2020_Nigeria_Report.pdf (un.org), e.g. p.2; Republic of Congo Voluntary National Review 2019, available at: CONGO Contribution Nationale Volontaire 2019.docx (un.org), e.g. p. 15; Venezuela's National Voluntary Review 2021, available at: 10168venezuelanationalreview.pdf (un.org), e.g. p. 3.

[114] *See* for example *Vaihere Bordes v. France*, UN Doc. CCPR/C/57/D/645/1995 (July 22, 1996); *Hatton v. UK*, 2003-VIII Eur. Ct. H.R. 189 para 96-101. There may be instances where environmental air pollution is traceable due to the presence of a major domestic factory or industry, however, climate change entails a diffusion of emission sources globally. See Benoit Mayer, 'Climate Change Mitigation as an Obligation Under Human Rights Treaties?', 115 *Am. J. Int'l Law* 409, 421 (2021) (citing Cordella v. Italy, App. No. 54414/13 (2019); Fadeyeva v. Russia, 2005-IV Eur. Ct. H.R. 255; Taşkın v. Turkey, 2004-X Eur. Ct. H.R. 179).

in disrupting the fine balance of the special regime and the value of consensus amid sovereign States.

CHAPTER V
LEGAL CONSEQUENCES FOR STATES UNDER OBLIGATIONS TOWARDS THE CLIMATE SYSTEM AND BROADER ENVIRONMENT

95. The Court was presented with the following second question:

> *(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?*"

A) Facilitative and Non-Punitive Mechanisms in the Climate Change Special Legal Regime:

96. Legal consequences are addressed under the special rules of the UNFCCC, Kyoto Protocol and Paris Agreement. Recognizing the complex extent of the global problem of climate change and need to address it, States have devised the adequate, non-punitive compliance mechanisms in the UNFCCC and Paris Agreement to address States who fall short of their obligations as legal consequences. States differ in their respective capabilities towards anthropogenic GHG emissions that have arisen over several centuries. To correspond with these differing State circumstances and respective responsibilities, certain facilitative compliance and implementation mechanisms were instilled within the Paris Agreement, which includes:

1. **A mechanism to facilitate implementation of and promote compliance** with the provisions of Paris Agreement and shall be "*shall be expert-based and facilitative in nature and function in a manner that is transparent, non-adversarial and non-punitive. The committee shall pay particular attention to the respective national capabilities and circumstances of Parties.*"[115]

2. **A "global stocktake"** that periodically takes stock of the implementation of the Paris Agreement to assess the collective progress towards achieving the purpose of this Agreement and its long-term goals "*in a comprehensive and facilitative manner, considering mitigation, adaptation and the means of implementation and support, and in the light of equity and the best available science*."[116]

[115] Article 15 of the Paris Agreement
[116] Article 14 of the Paris Agreement

3. **A transparency framework** to build mutual trust and confidence and to promote effective implementation, "*with built-in flexibility which takes into account Parties' different capacities and builds upon collective experience is hereby established.*"[117]

97. These mechanisms are not premised on penalizing States, but rather on assisting States and identifying deficiencies pertaining to the lowering of GHG emissions and adaptation to climate change that correlate with the nature of obligations of conduct in the Paris Agreement and the UNFCCC. These mechanisms thus leverage the necessary cooperation from the international community to provide technical or financial support to States in need.

98. These facilitative, non-adversarial and non-punitive mechanisms are not foreign to international law.[118] They are the essence of some obligations that are especially complex in necessitating structural changes to a State's economic, social, and political systems, where penalizing States is not the adequate mechanism equipped to address it.

    Endless litigation does not present lasting solutions, as is often illustrated by domestic case law.[119] Courts do not have the needed policy tools to design and dictate energy policy, nationally or internationally. Methods to address climate change are diligently tailored through comprehensive State policies. A State's governing authorities,

[117] Article 13 of the Paris Agreement

[118] *See* for instance Annex II: Non-compliance procedure to the Montreal Protocol according to Article 8 of the Protocol, approved at the Tenth Meeting of the Parties (1998) available at: https://ozone.unep.org/node/2078 The Implementation Committee recommendations are available at: https://ozone.unep.org/list-of-implementation-committee-recommendations ; CITES Compliance Procedures adopted by the Conference of Parties Resolution Conf. 14.3 (Rev. COP19) implementing Articles XII & XIII of the Convention to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), UNTS Volume 993 (p.243) 3 March 1973, available at: https://cites.org/sites/default/files/documents/COP/19/resolution/E-Res-14-03-R19.pdf; also see Chapter 5 - Compliance: Implementation, Enforcement, Dispute Settlement in PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW at pp. 135-184 (3rd ed., Eds. Philippe Sands, Jacqueline Peel, Adriana Fabra & Ruth MacKenzie, 2012)

[119] In the *Urgenda Foundation v the State of the Netherlands and the Royal Dutch Shell* Cases, the Courts of the Netherlands ordered either the Government of the Netherlands or the Royal Dutch Shell Company to lower their GHG emissions. However, as in these cases, the means to implement the lowering of GHG emissions could easily be viewed as narrow. The Government or company could introduce simple temporary solutions like selling traditional energy assets to other actors with less stringent policies in place who ultimately end up producing more not less GHG emissions. Restrictive measures could also lead to the release of employees from their jobs, instead of other more complex measures that may entail government support. A more responsible approach for instance would be to encourage these multinational corporations or State actors to acquire more of such assets and then decarbonize them given their resources. However, this entails very diligently-framed and comprehensive policies that anticipate their spillover effects. *See Urgenda Foundation v the State of the Netherlands*, ECLI:NL:RBDHA:2015:7145 (District Court of the Hague, 24 June 2015), ILDC 2456 (2015) (Urgenda I) p. 5.1.; *Urgenda Foundation v the State of the Netherlands*, ECLI:NL:GHDHA:2018:2591 (Court of Appeal of the Hague, 9 October 2018), English translation in (2020) 67 NILR 342 (Urgenda II); *Urgenda Foundation v the State of the Netherlands*, ECLI:NL:HR:2019:2007 (Supreme Court, 20 December 2019), English translation in (2020) 59 ILM 811 (Urgenda III); Milieudefensie v Royal Dutch Shell, ECLI:NL:RBDHA:2021:5337 (District Court of the Hague, 26 May 2021) p.5.3.

whether through its executive or legislative branches, fine tune policies with utmost consideration of securing its global contributions to addressing anthropogenic GHG emissions in collaboration with other States, while at the same time not disrupting the current needs for energy, transportation, heating and cooling systems, amongst other necessities.

B) Inapplicability of Liability for loss and damage in the Special Regime on Climate Change:

99. There is no global consensus on liability in the context of anthropogenic GHG emissions, or liability for causing harm. On the contrary, States through the Conference of Parties, the supreme decision–making authority on matters related to the Paris Agreement (CMA) and the UNFCCC (COP), explicitly decided to remove any doubt about liability and compensation for loss and damage. In paragraph 51 of Decision 1/CP.21 on the adoption of the Paris Agreement in its 21st session in reference to Article 8 of the Agreement on loss and damage, that the Conference, "*Agrees that Article 8 of the [Paris] Agreement does not involve or provide a basis for any liability or compensation.*"[120]

100. In this respect, States in other instruments have agreed to include explicit provisions on responsibility and liability. One such instrument is the *Convention on International Liability for Damage Caused by Space Objects*.[121] State Parties to this Convention included explicit provisions on liability due to the nature of the topic and the adequacy of liability provisions in addressing these undisputedly dangerous or hazardous activities. Similar Conventions addressing liability include the Convention on Third Party Liability in the Field of Nuclear Energy of 29 July 1960 and the Vienna Convention on Civil Liability for Nuclear Damage.[122] These two instruments also address undoubtedly hazardous activities. Accordingly, for other activities, treaties on liability have failed to enter into force, signaling a lack of consensus as to the adequacy of this approach to certain topics.[123]

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[120] Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015, Addendum Part two: Action taken by the Conference of the Parties at its twenty-first session, Decisions adopted by the Conference of the Parties, Adoption of the Paris Agreement, para 51, available at: https://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf#page=2

[121] Convention on International Liability for Damage Caused by Space Objects, 29 March 1972, entered into force 1 September 1972) 961 UNTS 13810.

[122] Vienna Convention on Civil Liability for Nuclear Damage, 21 May 1963, UNTS Vol. 1063, No. I-16197; Convention on Third Party Liability in the Field of Nuclear Energy of 29 July 1960, UNTS A-13706, Vol. 1519

[123] *See* the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movement of Hazardous Wastes and their Disposal, the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety, the Protocol on Civil Liability and Compensation for Damage Caused by Transboundary Effects of Industrial Accidents, the Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment and the 1988 Convention on the Regulation of Antarctic Mineral Resource Activities.

101. Other interpretations on liability are not to be substituted for the understandings of the sovereign States who spent years negotiating the text of the special climate change treaties that reflect their collective interests. This is true by reference to other efforts to generally ground transboundary harm on the idea of liability and damage that have failed thus far to attract global consensus, including the ILC *Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities* (2001).[124] Furthermore, the topic of responsibility for "activities not prohibited by international law" that was to be addressed in these Articles was also ultimately dropped due to lack of State consensus.[125]

102. A similar approach with rejections of the idea of liability for loss and damages is reflected in the ILC Draft Guidelines on the Protection of the Atmosphere 2021.[126] Several Annex I and non-Annex I to the UNFCCC Countries voiced their opposition to the whole topic and the notion of expanding legal consequences to cover liability for harm or damage.[127] In his *5th Report on the Protection of the Atmosphere*, [128] Special Rapporteur Shinya Murase stressed that it is "difficult, if not impossible, to identify, in the context of global atmospheric degradation, such as climate change, which States are responsible for the causes of the alleged damage." He further emphasized:

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[124] *Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities, with Commentaries* (2001). Text adopted by the International Law Commission at its fifty-third session, in 2001, and submitted to the General Assembly as a part of the Commission's report covering the work of that session (A/56/10). The report, which also contains commentaries on the draft articles, appears in the Yearbook of the International Law Commission, 2001, vol. II, Part Two.Also *see* Official Records of the General Assembly, Seventy-third Session, Supplement No. 10 (A/73/10), Annex B. Sea-level rise in relation to international law, p. 326, para 14, where these discussions were omitted.

[125] ILC Report on the work of the fifty-third session (2001) Chapter V: *International liability for injurious consequences arising out of acts not prohibited by international law (Prevention of Transboundary Harm from Hazardous Activities)* p. 145, available at: https://legal.un.org/ilc/reports/2001/english/chp5.pdf; *Draft articles on Prevention of Transboundary Harm from Hazardous Activities, with commentaries 2001*, p. 150, Text adopted by the International Law Commission at its fifty-third session, in 2001, and submitted to the General Assembly as a part of the Commission's report covering the work of that session (A/56/10). The report, which also contains commentaries on the draft articles, appears in the Yearbook of the International Law Commission, 2001, vol. II, Part Two.

[126] *Draft Guidelines on the Protection of the Atmosphere 2021*, adopted by the International Law Commission at its seventy-second session, in 2021, and submitted to the General Assembly as a part of the Commission's report covering the work of that session (A/76/10, para 39). Yearbook of the International Law Commission, 2021, vol. II, Part Two.

[127] Shinya Murase, Special Rapporteur, UN Doc A/CN.4/711 para 4, 8 February 2018, New York, 30 April–1 June 2018; Geneva, 2 July–10 August 2018; ILC Provisional Summary Record 3247th Meeting, UN Doc A/CN.4/SR.3247 at para 24 (Kittichaisaree), para 42, 43 (Hmoud); ILC Provisional Summary Record 3213th Meeting, UN Doc A/CN.4/SR.3213 at para 21, para 22 (Hernández); ILC Provisional Summary Record 3246th Meeting, UN Doc A/CN.4/SR.3246 at para 2 (Murphy), para 14 (Nolte); ILC Provisional Summary Record 3247th Meeting, UN Doc A/CN.4/SR.3247 at para 2–5 (Wood), para 17 (Hassouna), para 35-36 (Šturma), para 50-51 (Petrič); ILC Provisional Summary Record 3212th Meeting, UN Doc A/CN.4/SR.3212 at para 5-6 (Hmoud); Summary Record 22nd Meeting, UN Doc A/C.6/69/SR.22 at para 28-30 (Alabrune, France).

[128] ILC Report 70th Session, UN Doc A/73/10 para 195 [78] (Draft Guideline 10 [7]). Commentary [7]). *See* also Shinya Murase, Special Rapporteur, UN Doc A/CN.4/711, para 17, 8 February 2018, New York, 30 April–1 June 2018; Geneva, 2 July–10 August 2018.

It may be a necessary reminder that the work of the Commission on this topic seeks to establish a cooperative framework for atmospheric protection, instead of seeking to mould "shame and blame" matrices under a regime of State responsibility in international law. International cooperation is at the core of the current project.[129] *From that perspective, a failure to implement the obligations may be better dealt with by an alternative mechanism to seeking to penalize a State for a breach of its obligations. Instead, facilitating compliance through rendering assistance to non-complying States may better serve the objective of the present draft guidelines on the protection of the atmosphere.*[130]

103. Liability and damages are not legal consequences to address climate change in its special treaty regime.. The Court can conclude this from the position of States in the progressive codification of rules of international law and present state of the *lex specialis* regime (up to COP28 in December 2023).[131] State practice through the treaty-making outcomes of the UNFCCC, Kyoto Protocol and Paris Agreement and stances on codification efforts have thus rejected liability for loss and damage as applicable to the *lex specialis* regime stating their climate change obligations.

C) <u>Emphasis on Cooperation in the UNFCCC and Paris Agreement:</u>

104. The UNFCCC, Kyoto Protocol and Paris Agreement *lex specialis* regime established cooperation as the mechanism to implement its provisions, which includes COP coordination and the provision of technical and financial support to non-Annex I to the UNFCCC Countries, to ultimately address the overarching objectives of the climate change treaties.[132] This is supported by the UN Charter's emphasis on cooperation as being one of its primary means to resolve disagreements.[133] While the mechanisms to strengthen cooperation are imbedded in these Agreements, the implementation of elements such as finance from Annex I to the UNFCCC Countries needs to be accelerated. International public finance flows to support clean energy in non-Annex I to the UNFCCC Countries have been decreasing since the COVID-19 Pandemic, falling to less than 35% in 2021 compared with the period from 2010-2019.[134] Calls by non-Annex I to the UNFCCC Countries are being channeled through COP meetings and

[129] *See* the Special Rapporteur's Second Report (A/CN.4/681), Sect. VI, available at: https://undocs.org/A/CN.4/681
[130] Shinya Murase, Special Rapporteur, UN Doc A/CN.4/711 para 18.
[131] *See* UAE Consensus, COP28, available at: https://unfccc.int/cop28/outcomes
[132] See Articles 6-12 of the Paris Agreement
[133] Article 1(3) of the Charter of the UN
[134] 2023 World Oil Outlook 2045 at p. 236

other forums to leverage collaboration on addressing the gaps in public and private finance sources.[135]

105. This facilitative legal consequence and need for collaboration does not change even where a State or individual can prove it has sustained harm. This harm, similarly, is to be addressed through the cooperation of all States, such as the establishment of a loss and damage fund by the COP for countries impacted by climate change, as outlined by Article 8 of the Paris Agreement.[136] Annex I to the UNFCCC Countries committed to jointly mobilize USD 100 Billion per year by 2020 through to 2025 to support non-Annex I to the UNFCCC Countries in their efforts to address climate change. The Green Climate Fund was established to facilitate the delivery of support from Annex I to non-Annex I to the UNFCCC Countries and to operate the financial mechanism of the Convention as outlined in Article 11 of the UNFCCC..[137]

106. Paris Agreement Parties emphasized *the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts* in Article 8 of the Agreement. This Mechanism would help in "averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage." Nonetheless, as in Article 8(3) of the Paris Agreement, Parties are to enhance action under this Mechanism "*on a cooperative and facilitative basis*".

107. COP 2/CP.27 and CMA 2/CMA.4 Decisions in 2022 further established new funding arrangements, and a particular fund, for "*assisting developing countries that are particularly vulnerable to the adverse effects of climate change, in responding to loss and damage, including with a focus on addressing loss and damage*" with a transitional committee to make recommendations on the operationalization of the funding arrangements and the Fund.[138] COP28 and CMA.5 recalled that the Fund and funding arrangements were established on the basis of cooperation and facilitation rather than liability or compensation. In these Decisions, the Fund was designated as an

[135] *See* Decision -/CP.27 Sharm el-Sheikh Implementation Plan, UNFCCC, Conference of the Parties Twenty-Seventh Session/ Conference of the Parties serving as the meeting of the Parties to the Paris Agreement Fourth Session, Sharm el-Sheikh, 6-18 November 2022, https://unfccc.int/sites/default/files/resource/cop27_auv_2_cover%20decision.pdf

[136] What you need to know about the COP27 Loss and Damage Fund, UNEP.org, https://www.unep.org/news-and-stories/story/what-you-need-know-about-cop27-loss-and-damage-fund

[137] The *Cancun Agreements*, Draft decision -/CP.16 Outcome of the work of the Ad Hoc Working Group on long-term Cooperative Action under the Convention at pp. 14-15, United Nations Climate Change Conference, 11 December 2010, Cancun, Mexico, available at: http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf

[138] Funding Arrangements for responding to Loss and Damage associated with the adverse effects of Climate Change, including a Focus on addressing Loss and Damage, UNFCCC, Decision -/CP.27 -/CMA.4, Nos. FCCC/CP/2022/L.18–FCCC/PA/CMA/2022/L.20, Conference of the Parties Twenty-Seventh Session/ Conference of the Parties serving as the meeting of the Parties to the Paris Agreement Fourth Session, Sharm el-Sheikh, 6–18 November 2022, available at: https://unfccc.int/documents/624434

operating entity of the financial mechanism of the UNFCCC, which is outlined in its Article 11.

108. In their most recent efforts, State Parties to both the Paris Agreement and the UNFCCC came together and agreed to operationalize the loss and damage funding arrangements.[139] States immediately pledged necessary funds for these arrangements. Additional resource mobilization also included a replenishment of the established Green Climate Fund in a largest ever amount of US $12.3 billion.[140] This collaborative effort is a sign of solidarity where States can work together and achieve outcomes, while demonstrating Annex I to the UNFCCC Countries' obligation to provide support and their leadership in such endeavor.

109. This landmark decision on operationalizing the loss and damage funding arrangement nonetheless sought to once again clear any doubts about the nature of this special regime by explicitly mentioning its cooperative nature and elimination of liability. The Preamble of the decision stated:

> *Recalling the understanding of the Conference of the Parties and the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement that funding arrangements, including a fund, for responding to loss and damage **a**re based on cooperation and facilitation and do not involve liability or compensation [FCCC/CP/2022/10, para. 7(b), and FCCC/PA/CMA/2022/10, para. 71.]*

110. The Paris Agreement text is consistent in calling for cooperation of State Parties on different matters to address anthropogenic GHG emissions.[141] Cooperation is mentioned in all the following different elements of reaching the Article 2 objective:

1. **Impact of response measures**: Article 4
2. **Climate change mitigation efforts**: Articles 6 of the Paris Agreement
3. **Adaptation to climate change**: Article 7 of the Paris Agreement,
4. **Loss and damage resulting from climate change and measures to address it**: Article 8 of the Paris Agreement,[142]

[139] Matters relating to finance: Operationalization of the funding arrangements for responding to loss and damage referred to in paragraph 2, including the fund referred to in paragraph 3, of decisions 2/CP.27 and 2/CMA.4, UNFCCC, -/CP.28 -/CMA.5, 29 November 2023, Nos. FCCC/CP/2023/L.1–FCCC/PA/CMA/2023/L.1, Conference of the Parties Twenty-eighth session United Arab Emirates, 30 November to 12 December 2023 Item 8(g) of the provisional agenda, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement Fifth session United Arab Emirates, 30 November to 12 December 2023 Item 10(g) of the provisional agenda, available at: https://unfccc.int/event/cop-28?item=8%20g

[140] Project Portfolio, Green Climate Fund, https://www.greenclimate.fund/projects/dashboard

[141] Similar provisions exist in the UNFCCC: Articles 4-7.

[142] This Article contains multiple avenues of international collaboration that include:
(a) Early warning systems;
(b) Emergency preparedness;
(c) Slow onset events;
(d) Events that may involve irreversible and permanent loss and damage;

5. **Financing mitigation and adaptation to climate change**: Article 10 of the Paris Agreement,
6. **Technical capacity assistance**: Article 11 of the Paris Agreement,
7. **Technology transfer**: Article 10 of the Paris Agreement,
8. **Enhancing climate change education, training, public awareness, public participation and public access to information**: Article 12 of the Paris Agreement.

111. Other readings of legal consequences of climate change obligations from anthropogenic GHG emissions would be incompatible with the aim and object of the special rules of the UNFCCC, Kyoto Protocol and Paris Agreement. As Stated in the Preamble of the UNFCCC:

> *Acknowledging that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic condition;*
>
> *Reaffirming the principle of sovereignty of States in international cooperation to address climate change.* [143]

D) <u>Complexity of assessing State Measures in Climate Change Action</u>

112. To further elaborate on the complexity of climate change action that necessitates cooperation not confrontation by arising liability claims, State contributions to the general aim of limiting GHG emissions and adapting accordingly are all-encompassing. These complex undertakings extend to the degree of overhauling entire industries a country has relied on for its economy, relocating people from areas susceptible to environmental degradation, requiring a shift in societal attitudes towards energy consumption, and additional lengthy legislative, executive, and judicial measures. The potential critical role remains for the Courts to ensure the application of enacted obligations.

113. These considerations bring to the forefront the need to integrate the idea of development as a process and framework that helps guides the extent of response measures needed by States to address climate change. This process necessarily engages all stakeholders of a State to ensure social, economic, and political dimensions are embraced in State policies in light of national circumstances.

(e) Comprehensive risk assessment and management;
(f) Risk insurance facilities, climate risk pooling and other insurance solutions;
(g) Non-economic losses; and
(h) Resilience of communities, livelihoods and ecosystems.
[143] Preamble of the UNFCCC.

114. OPEC Member Countries, like other non-Annex I to the UNFCCC Countries, have accepted these transformative changing circumstances and decided to adapt accordingly, for them to collaborate with other States and collectively address climate change, notwithstanding the hardships that come along. These Countries have accepted the UNFCCC and Paris Agreement commitments with these challenges in mind. However, to expand these hardships by determining that there are other rules of international law that establish liability for loss and damage with no consent of these sovereign States would be an unwarranted divergence from the law of nations as we know it today, threatening to disrupt the entire international law system.

115. These facts about the intricacies of implementing climate change obligations underscore the fact that States are faced with challenges in many instances due to lack of capacity or circumstances rather than intentional disregard to the commitments undertaken, owing to competing, urgent needs of the State population (e.g. heating).[144]

116. States, through contributing to the overall objective to limit global temperatures, encourage others to do so as well, thereby collectively preserving a global public good, the climate system.[145] The effects of climate change reach all parts of the earth's atmosphere. And all States' wellbeing is necessarily degraded by not addressing this problem domestically. This is why in one of its cooperative implementation mechanisms, parties to the Paris Agreement called for a periodic "*global stocktake*" to assess "*the collective progress towards achieving the purpose of this Agreement and its long-term goals……in a comprehensive and facilitative manner*".[146]

117. There are, moreover, a myriad of factors that have impacted the climate system. Many of these causes are historical, like the exponential increase in emissions due to the Industrial Revolution, revealing some of its effects today, and others through natural causes.[147] Thus to establish that States are to be liable for damage to the environment individually or collectively, is misleading and lacks the preciseness that rulings on these matters require before declaring a judgment.[148]

118. Correspondingly, legal consequences for States by acts or omissions causing harm to the climate system and broader environment is to consider the interconnectedness of

[144] Daniel Bodansky, The Art and Craft of International Environmental Law 237 (Cambridge, Massachusetts, 2010).
[145] Daniel Bodansky, Jutta Brunnée, & Lavanya Rajamani, International Climate Change Law at p. 3 (Daniel Bodansky, Jutta Brunnée, & Lavanya Rajamani eds. OUP, Oxford, 2017).
[146] Article 14(1) of the Paris Agreement.
[147] 2023 World Oil Outlook 2045 at pp. 80-81
[148] Furthermore, the preciseness of present day calculations of current v historical contributions of GHG emissions are still disputed. *See* How Colonial Rule radically shifts Historical Responsibility for Climate Change, 26 November 2023, Carbon Brief Report, available at: https://www.carbonbrief.org/revealed-how-colonial-rule-radically-shifts-historical-responsibility-for-climate-change/

causal relationships between degradation to the climate system and acts or omissions over a considerable span of time throughout history.[149] Returning global temperatures to acceptable levels necessitate complex steps to address multiple century's worth of impact on the climate system.

119. The answer to the second question presented to the Court about legal consequences is to thus defer to States' agreed upon self-contained special provisions in the primary sources of international law, the UNFCCC, Kyoto Protocol and Paris Agreement. As in these international legal rules, consequences are addressed through the compliance and implementation mechanisms within, including specific obligations on Annex I to the UNFCCC Countries to cooperate through making financial contributions.

120. Had States wished to impose other consequences on States for any harm from acts –including activities generating GHG emissions- which are not designated as internationally wrongful,[150] they would have expressly agreed to do so in the climate change treaty regime.

E) <u>Legal Consequences of Obligations towards Peoples and Individuals:</u>

121. The analysis provided for the first question about the obligations of States towards present and future generations by extension applies to the question about the legal consequences related to these obligations with respect to such peoples and individuals. Obligations of States in the *lex specialis* regime on climate change do not create any additional obligations or legal consequences on States towards peoples. This submission has stressed the importance of acknowledging the complexity of attributing responsibility for the global problem of climate change historically and presently in connection with specifically anthropogenic GHG emissions. State cooperation, as in the Paris Agreement, to address global GHG emissions will, nonetheless, benefit its peoples by limiting any further climate change impacts, thus serving a self and collective State interest.

[149] Even for other acts that fall under internationally wrongful acts, the ICJ has emphasized that account must be taken as to "*whether there is a sufficiently direct and certain causal nexus between the wrongful act . . . and the injury suffered by the Applicant*" (Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro), Judgment, I.C.J. Reports 2007 (I), pp. 233-234, para 462). Hence, "*If the existence of injury and causation is established, the Court will then determine the valuation*." Ahmadou Sadio Diallo, Republic of Guinea v Democratic Republic of the Congo, I.C.J. Judgment of 19 June 2012, Compensation owed by the Democratic Republic of the Congo to the Republic of Guinea, p. 332, para 14.

[150] Nowhere in the in the ordinary meaning of the *lex specialis* regime provisions of the UNFCCC and Paris Agreement are activities generating anthropogenic GHG emissions deemed prohibited or wrongful.

CHAPTER VI
CONCLUSION

122. States should take opportunities like this Advisory Opinion as reminders of their existing obligations to address climate change as in the *lex specialis* regime of the UNFCCC, Kyoto Protocol and Paris Agreement. While this topic is expected to evolve, State parties to these international instruments through their lawmaking role may wish to revisit these rules to coincide with these advancements. In the meantime, the current special regime represents the evolution of State consensus towards addressing climate change.

123. Rules in the *lex specialis* regime regulating anthropogenic GHG emissions in the context of climate change in international law are crafted through years of negotiations to correspond with the complexity of this global matter. These rules intentionally embodied the necessary flexibility for all States to address these emissions within their differing capacities and in the context of development.

124. Currently, the analysis in this submission wishes to support the Court in its findings about existing State obligations in international law on anthropogenic GHG emissions that effect the climate system and the broader environment and legal consequences of acts and omissions pertaining thereof.

The analysis makes the following points:

125. **Scope**: The scope of this Advisory Opinion is confined to State obligations pertaining to anthropogenic GHG emissions and their effect on the climate system and broader environment.

126. **Applicable Law**: The obligations of States and legal consequences as in questions 1 and 2 presented to the Court are to be assessed in the context of existing rules (*lex lata*) of international law and not what these rule ought to be (*lex ferenda*)**.** The latter role is for States as rulemakers to visit, should they deem fit. These rules are not to be extended beyond this special treaty regime so as to incorporate other rules applicable to broader environmental issues that do not fit its complex nature. This *lex specialis* regime within the UNFCCC, Kyoto Protocol and Paris Agreement is a self-contained regime governing anthropogenic GHG emissions.

Furthermore, the Court, guided by UN General Assembly Resolution 77/276 on the request for this Advisory Opinion, would not create additional obligations or responsibilities on States. In this regard, a distinction between what States have accepted as “obligations” and other “principles” that help guide States implement their obligations is critical so as to not transform such principles into new separate obligations.

The Court is called upon to exercise economy in approaching this Advisory Opinion in light of the scope and applicable law as in the UNFCCC, Kyoto Protocol and Paris Agreement.

127. **Question 1 (Obligations of States)**:

(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?

1. Obligations of States towards other States:

a) The obligations of all States to:

1. Submit NDCs as in Article 4 of the Paris Agreement;

2. As an obligation of conduct, to pursue climate change domestic measures and actions towards the aim of achieving the objectives of the NDCs, all in the context of national circumstances and as appropriate, as in Articles 4(2) and 7(9) of the Paris Agreement.

b) Obligations of Annex I to the UNFCCC Countries specifically:

These countries as named in Annex I of the UNFCCC, are to provide the necessary financial resources and enable technology transfer that supports non-Annex I to the UNFCCC Countries in addressing the mitigation of these emissions and adaptation to climate change accordingly, as in Articles 9 of the Paris Agreement and 4(3) of the UNFCCC.

2. Obligations of States towards present and future generations (peoples and individuals)

States are committed to the provisions of the climate change *lex specialis* regime that governs this topic. No additional obligations should be read into these existing obligations without being provided for in States' accepted commitments.

128. **Question 2 (Legal Consequences for State Acts and Omissions)**

(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?"

1. Legal consequences towards other States:

The *lex special* rules in the UNFCCC, Kyoto Protocol and Paris Agreement are to be referred to in light of the nature of the obligations therein. These two instruments specifically govern such consequences and rule out the applicability of other general rules on State responsibility for loss and damage. These rules highlighted that cooperation is the appropriate means to address State acts or omissions pertaining to obligations related to anthropogenic GHG emissions.

There are mechanisms in place to implement this cooperation that are of a facilitative, non-adversarial, and non-punitive nature,[151] including other financial and technical means of support.

There is no intention by these State parties to incorporate any liability for loss and damage as legal consequences for these obligations.

2. Legal consequences towards peoples and individuals:

States are committed to the treaties they have ratified. These treaties have addressed the necessary consequences for State obligations. No new legal consequences may be deduced and imposed on States premised on climate change and anthropogenic GHG emissions that they have not themselves accepted presently in the *lex specialis* regime.

Vienna, 19 March 2024

On behalf of the Organization of the Petroleum Exporting Countries, as its legal representative.

Haitham Al Ghais
Secretary General

[151] Articles 13-15 of the Paris Agreement.