INTERNATIONAL COURT OF JUSTICE, THE HAGUE

OBLIGATIONS OF STATES IN RESPECT OF CLIMATE CHANGE

(REQUEST FOR ADVISORY OPINION)

WRITTEN STATEMENT BY REPUBLIC OF INDIA

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CONTENTS

ABBREVIATIONS USED

1. **CBDR-RC:** Common but Differentiated Responsibility and Respective Capabilities
2. **CO_2:** Carbon dioxide
3. **COP28:** The 28th Conference of Parties to the UNFCCC
4. **EIT:** Economies in Transition
5. **GHG:** Greenhouse Gas
6. **GST:** Global Stocktake
7. **ILC:** International Law Commission
8. **IPCC:** Intergovernmental Panel on Climate Change
9. **IPCC AR6**: Sixth Assessment Report of IPCC
10. (IPCC AR6) **SYR**: Synthesis Report of the IPCC AR6
11. (IPCC AR6) **SPM**: Summary for Policymakers of the IPCC AR6
12. **LULUCF**: Land Use, Land-Use Change, and Forestry
13. **NDCs**: Nationally Determined Contributions
14. **tCO2e:** Tonnes of carbon dioxide equivalent
15. **UNFCCC:** United Nations Framework Convention on Climate Change
16. **UNGA:** United Nations General Assembly

I.
INTRODUCTION

1. The United Nations General Assembly (UNGA) [vide its Resolution A/RES/77/276 adopted on 29 March 2023] decided, in accordance with Article 96 of the Charter of the United Nations, *"to request the International Court of Justice, pursuant to Article 65 of the Statute of the Court, to render an advisory opinion on the following question:*

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

   (i) 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;

   (ii) 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:

      (a) 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?

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

2. By an Order dated 20 April 2023, the President of the International Court of Justice (ICJ) decided that the UN and its Member States "*are considered likely to be able to furnish information on the questions submitted to the*

Court for an advisory opinion and may do so". As per the Court's order dated 19 December 2023, the revised/extended time-limit for submission of written statements to the Court is 22 March 2024.

3. The Republic of India hereby submits its written statement to the Court on ***"The obligations of States in respect of Climate Change (Request for an Advisory Opinion)."*** Following this introduction (Part I of the submission), rest of this submission is organized as follows: Part II-Jurisdiction; Part III-General obligations of States to prevent transboundary harm; Part IV-International legal framework on climate change; Part V- Differentiated obligations of States; Part VI- Carbon equity for climate justice; Part VII-Human rights and climate change; VIII. Legal consequences; Part IX- Climate change and India; and Part X: Conclusions.

II.
JURISDICTION

4. Article 65 (1) of the ICJ Statute establishes the power of the Court to give an advisory opinion. It provides that the Court *"may give an advisory opinion on any legal question"* at the request of a body authorized by the UN Charter to request such opinion. Article 96 of the UN Charter complements that provision by authorizing the UN General Assembly to request an advisory opinion of the Court *"on any legal question."*

5. The ICJ is one of the international judicial bodies currently requested to provide advisory opinions on issues related to climate change. Countries have also requested the International Tribunal for the Law of the Sea (ITLOS) and the Inter-American Court of Human Rights (IACtHR) advisory opinions on the obligations of States with respect to climate change. Due to being requested earlier, and in light of the nature of their own proceedings, it is possible that both IACtHR and ITLOS advisory opinions may antecede the advisory opinion of the ICJ.

6. Bearing in mind the UNGA Resolution A/RES/77/276, the Court, being the principal judicial organ of the UN, in rendering its advisory opinion in the

current case could seek to clarify what are the existing obligations under general international law and the existing Climate Change regime i.e. UNFCCC (1992), its Kyoto Protocol (1997) and its Paris Agreement (2015).

7. India also contends that the Advisory opinion of the Court could offer the possibility of providing legal clarity on the scope of States' obligations under various international agreements, pertaining to climate change.

8. India further contends that the Court should avoid creation of new or additional obligations beyond what is already agreed under the climate change regime, which takes due consideration of climate justice and the principles of equity and common but differentiated responsibilities and respective capabilities (CBDR-RC).

III.
GENERAL OBLIGATIONS OF STATES TO PREVENT TRANSBOUNDARY HARM

9. A general obligation of the States to prevent transboundary environmental harm is a well-established rule of international law in general, and international environmental law in particular. The rule first began as an obligation in the context of trans-boundary relationship between neighboring States and eventually got expanded to move beyond this trans-boundary context to include an obligation not to harm areas beyond national jurisdiction. One of the earliest landmarks in the development of this rule is the *Trail Smelter* Arbitration (*US v. Canada*)[1]. Similarly, at the international level in the first case before the ICJ namely *Corfu Channel*[2]

[1] The Trail Smelter Arbitration (*US v. Canada*) judgment states *"under the principles of international law, as well as of the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence."*

[2] In the Corfu Channel case, the ICJ observed that the obligations incumbent upon the Albanian authorities consisted in notifying, for the benefit of shipping in general, the existence of a minefield in Albanian territorial waters and in warning the approaching British warships of the imminent danger to which the minefield exposed them. Such obligations are based, not on The

case (*UK v. Albania*, 1949) the Court recognized the obligation of States 'not to allow knowingly its territory to be used for acts contrary to the rights of other States' as a 'general and well-recognized' principle developing of international law.

10. Principle 21 of the Stockholm Declaration,1972 also reflected a similar understanding, but with a progressive qualitative improvement by expanding the scope of the obligation to include areas beyond national jurisdiction wherein it stated *"States have the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction"*.

11. The principle of prevention of transboundary harm has been recognized in various treaties and declarations- Principle 2 of Rio Declaration, 1992, multilateral environmental agreements- Art 3 of Convention on Biological Diversity, 1992 and the International Court of Justice Advisory Opinion on *Legality of the Threat or Use of Nuclear Weapons* (1996).

12. The principle of prevention (obligation of States to take preventive measures) consists of two different obligations, one being the obligation to "prevent" before actual pollution or degradation occurs, and the other the duty to "eliminate", "mitigate" and "compensate" after harm has occurred. The principle of prevention in environmental law is based on the concept of due diligence, which requires States to constantly and continuously monitor its own activities as well as activities of non-state actors in their territory (Murase, 2016, 3rd report, para 17). Further, it may be noted that preventive and precautionary approaches, as opposed to mitigative approaches, are applicable to cases of environmental harm, as it is difficult to remedy an environmental harm, as has been recognized by the ICJ in *Gabčikovo-Nagymaros case.*

Hague Convention of 1907, No. VTII, which is applicable in time of war, but on certain general and well-recognized principles, namely: elementary considerations of humanity, even more exacting in peace than in war; the principle of the freedom of maritime communication; and every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States.

13. The obligation of States in this regard is to be seen as obligation of conduct, and not an obligation of result. The obligation of States "to ensure" does not require the achievement of a certain result (obligation of result) but only requires the best available effort not to cause adverse effects (obligation of conduct). Thus, the key question in case of any dispute would be whether the concerned State or States have taken all reasonable efforts or best possible efforts to prevent environmental harm. In that sense, it does not guarantee that the harm would never occur (Murase, 2016, 3rd report, para 18; Eduardo Valencia-Ospina, Special Rapporteur, Protection of Persons in the Event of Disasters).

14. The due diligence requirement has been further elaborated to include specific process of environment impact assessment. The ICJ in the *Pulp Mills* case (2010) observed that 'due diligence, and the duty of vigilance and prevention which it implies, would not be considered to have been exercised, if a party ... did not undertake an environmental impact assessment on the potential effects of such works'. Similarly, the ICJ in the *Certain Activities carried out by Nicaragua in the Border Area and Construction of a Road in Costa Rica along the San Juan River* case (2015) observed that 'a State's obligation to exercise due diligence in preventing significant transboundary harm requires that State to ascertain whether there is a risk of significant transboundary harm prior to undertaking an activity having the potential adversely to affect the environment of another State. If that is the case, the State concerned must conduct an environmental impact assessment. The obligation in question rests on the State pursuing the activity'.

15. Thus, the obligation of States to prevent environmental harm has been in the process of constant iterations and elaboration. As it stands now, it involves a duty of due diligence and a duty to conduct environmental impact assessment. All these elements or processes form some of the key benchmarks to ascertain the breach of the obligation.

16. Climate change has been recognized as an environmental issue at a planetary level which transcends temporal, political, social and economic boundaries. Hence, UNGA Resolution 43/53 of 1988 recognized as a common concern of humankind. The same formulation has been reiterated

in the preamble of both United Nations Framework Convention on Climate Change (UNFCCC), 1992 and its Paris Agreement, 2015.

17. However, environmental pollution and climate change must not be conflated. While there is an overlap in some areas, the science is clear on what the differences are in the two phenomena both at temporal and spatial scales. The best available science has not qualified 'heat' and 'carbon dioxide' as environment pollutants. None of the reports of the Intergovernmental Panel on Climate Change (IPCC), which have presented their findings on the impacts of climate change, has termed the impacts of CO2 on various sectors as environmental pollution. India contends that, while addressing the questions, the Court, in the exercise of its judicial function, may consider that climate change issues cannot be treated as pollution of the environment. Therefore, climate change cannot be dealt like the trounsbandary harm on environment, but is dealt with under a distinct regime of UNFCCC and its two instruments.

18. The recognition of climate change as a common concern of humankind implies that no single state can address the issue and it also implies that it cannot be addressed effectively with unilateral uncoordinated measures by States. As the International Law Commission Special Rapporteur on Protection of the Atmosphere stated, the issue of climate change legitimately fall under "matters of international concern".

IV.
INTERNATIONAL LEGAL FRAMEWORK REGULATING CLIMATE CHANGE

19. Climate change is a complex issue calling for concerted global efforts in a comprehensive manner under a comprehensive legal framework - the UNFCCC, its Kyoto Protocol and Paris Agreement. The States Parties to these three treaties meet annually at the relevant Conference of the Parties (COPs) and adopt decisions aimed at their implementation. The protracted and inclusive multilateral negotiations within the UNFCCC framework

address the obligations of the States with respect to climate change in a manner that respects the delicate balance of different aspects of climate change that need to be seen together as a whole, including mitigation, adaptation, climate finance, transfer of technology and capacity building, all of which have to be undertaken in the context of development and poverty eradication and reaching reasonable levels of well-being for developing countries.

A. <u>UNFCCC (1992) or the Convention</u>

20. The ultimate objective of the United Nations Framework Convention on Climate Change (UNFCCC) is to achieve "*stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.*" (Article 2, UNFCCC)

21. The ***principles of UNFCCC,*** under Article 3, emphasize, inter-alia, that:

i) 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 (CBDR-RC)**. Accordingly, the **developed country Parties should take the lead** in combating climate change and the adverse effects thereof. *(Emphasis added)*

ii) Recognition of specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change

iii) The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects.

iv) The Parties have a right to, and should, promote sustainable development. The climate action should be appropriate for the specific conditions of each Party and should be integrated with national

development programmes, taking into account that economic development is essential for adopting measures to address climate change.

v) The Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties.

Commitments/Obligations:

22. Article 4 of UNFCCC provides that Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall fulfill certain sets of obligations. The Convention differentiates between the obligations of the parties using two principle categories- developed countries Parties and other Parties included in Annex I, and the developing country Parties (non-Annex Parties).

23. All Parties have general commitments under the UNFCCC to take action to address climate change and report on their activities, but Annex I Parties have specific commitments, and face more stringent reporting requirements.

24. For example, all parties should develop, periodically update, publish and make available to the Conference of the Parties national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases. They should formulate, implement, publish and regularly update measures to mitigate climate change and measures to facilitate adequate adaptation to climate change. There are other obligations such as related to technology transfer, conservation and enhancement, as appropriate, of sinks and reservoirs.

25. The obligations applicable to 'all Parties' are subject to CBDR-RC and developmental priorities of individual State parties. This needs to be understood in the context of the acknowledgment, in the preamble, that 'the largest share of historical and current global emissions of greenhouse gases has originated in developed countries'. Thus, the 'lead' that developed countries are expected to take is on the basis of their historical contribution to the problem, as well as their capacity (economic and technological) to address the problem. Both these factors do not apply to

developing countries. This is further reflected in the preambular paragraph that *'the share of global emissions originating in developing countries will grow to meet their social and development needs'.* It is further recognized explicitly that implementation of duties by developing countries depend upon effective implementation of commitments by the developed country Parties [Article 4(7), UNFCCC]. This means, the major responsibility to achieve the objectives of the Convention is on the developed country Parties.

26. The commitments specific to 'developed country Parties and other Parties included in Annex I' [Article 4(2), UNFCCC] include an obligation of conduct to adopt policies and corresponding measures to reduce emission of GHGs and to protect GHG sinks and reservoirs, with the aim of returning individually or jointly to their 1990 levels of anthropogenic emissions of GHGs.

27. Further, the Annex-II country Parties have an obligation to provide 'new and additional' financial resources to developing country Parties to assist them in meeting the cost of fulfilling their obligations under the Convention. The Annex-II country Parties shall also take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention.

28. In other words, UNFCCC creates obligations of developed country Parties vis-à-vis developing country parties. This is indeed a reflection of the principle of CBDR-RC and an articulation of a legal obligation-based on the historical contribution of developed country Parties to the problem of climate change. It is also based on the understanding that developed countries have been the beneficiaries of activities harmful to the environment in general and climate system in particular.

29. It is to be noted that the Convention underlines the principle that 'measures taken to combat climate change……should not constitute a means of arbitrary or unjustifiable or a disguised restriction on international trade' [Article 3(5), UNFCCC]. Thus, it appears that the duty to facilitate transfer of environmentally sound technologies is subject to international trade law

rules and this obligation may make it almost redundant, unless developed country Parties takes it seriously.

B. KYOTO PROTOCOL (1997) under the UNFCCC

30. Kyoto Protocol (entered into force on 16 February 2005) is the first treaty, under the UNFCCC, to impose binding obligations on States to reduce GHG emissions. It draws a distinction between industrialized nations and developing States by imposing mandatory emission reduction targets only on 37 industrialized nations and the European Union, due to their historical responsibility for emitting GHGs. developing States were to comply voluntarily.

31. Article 3, Kyoto Protocol imposes binding GHG targets on 37 developed nations and the European Union, to ensure, either individually or jointly, that their aggregate anthropogenic GHG emissions do not exceed their assigned amounts. The mandatory language 'shall' in Article 3 evinces the binding nature of these commitments. The first commitment period (from 2008 to 2012) set an overall emissions reduction goal of at least 5% below 1990 levels. The second commitment period (from 2013 to 2020), sought to reduce GHG emissions by 18% from 1990 levels, as set out in the Doha Amendment to the Kyoto Protocol, which was adopted in December 2012 but only entered into force on the last day of second commitment period, in December 2020.

PARIS AGREEMENT (2015) under the UNFCCC

32. Paris Agreement, adopted under the UNFCCC, is an international treaty governing the post-2020 global climate action, in pursuit of the objectives of the Convention. The Agreement enhances implementation of the UNFCCC through the elements of mitigation, adaptation, finance, technology transfer, capacity building based on the principles of equity and CBDR-RC. The Agreement acknowledges the development imperatives of developing countries, specially eradication of poverty.

33. Paris Agreement is a five-year cycle of increasingly ambitious climate action by States. As per the Agreement, countries have been submitting their national climate action plans, known as nationally determined contributions

(NDCs). In NDCs, countries are required to communicate actions they will take to reduce their GHG emissions with a view to reach the purpose of the Agreement. In this context, Agreement provides that developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets. Developing country Parties should also 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. Countries may also communicate in the NDCs actions they may take to build resilience to adapt to the impacts of rising temperatures. Submission of NDCs is continuous activity with an obligation to periodically update NDCs in every five years [Article 4(2), Paris Agreement]. Successive NDCs is expected to meet the requirements of 'progression' when compared to the previous NDCs [Article 4(3), Paris Agreement].

34. Article 7 of Paris Agreement provides for obligations for enhancing adaptive capacity, strengthening resilience and reducing vulnerability to the climate change with a view to contribute to sustainable development and ensuring adequate adaptation action response in the context of the goals referred to in Article 2. As per the Agreement, each Party is required to engage in adaptation planning processes and the implementation, etc.

35. The Agreement also states that 'continuous and enhanced international support shall be provided to developing country Parties' for implementation of their adaptation action [Article 7(13), Paris Agreement]. The obligation in terms of mobilization of climate finance, development and transfer of technologies, capacity building, longer-term strategy, loss and damage and to conserve and enhance protection of sinks and reservoirs of GHGs, etc. are also provided in the Agreement. Such financial assistance is expected to grow continuously [Article 9(3)] and developed countries are obliged to communicate the details of financial assistance provided to developing countries [Articles 9(5) and 9(7), Paris Agreement].

V.
OBLIGATIONS OF STATES WITH RESPECT TO CLIMATE CHANGE ARE DIFFERENTIATED

36. Climate change, recognized as a common concern for humankind, calls for concerted efforts by all countries. However, as also well-enshrined in the UNFCCC, its Kyoto Protocol and its Paris Agreement, the responsibilities of States, while common, are differentiated for developing countries and developed countries.

A. Common but Differentiated Responsibilities and Respective Capabilities (CBDR–RC)

37. The principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR–RC) appears in Article 3, paragraph 1 of the UNFCCC. Accordingly, this principle requires all state parties to assume responsibility while addressing climate change, though the same varies from country to country[3]. Further, it addresses the problem of reconciling equity with the need for global efforts addressing a problem to which all countries contribute[4]. The differential treatment on the ground of social and economic conditions as emphasized and demanded by the developing countries were that the developed countries had already achieved high level of development (that leads to 'luxury emissions').

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[3] UNFCCC places countries in three categories and responsibilities: (i) *Annex I countries* includes 24 countries of OECD, the EU and countries undergoing transition to a market economy. Under Articles 4(2)(b), 12 (2) and (5), these countries are committed to control their anthropogenic emissions of GHG's and enhancing their sinks and reservoirs and Article 4(6) allows annex 1 countries undergoing transition to market economy some flexibility in meeting the requirements and commitments; (ii) *Annex II countries* comprise the 24 original OECD countries and EU, which are included in Annex I which has specific obligations to help the developing countries technologically and financially; (iii) *Non-Annex I countries* mainly consists of developing countries depending upon the resources available to them through the developed countries.

[4] Article 3, Paragraph 1 of UNFCCC clearly links equity to the Common but Differentiated responsibility principle. "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 responsibility and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof;" 31 I.L.M. at 854.

38. The affirmative admission in this respect, in the Preambular paragraph 3 of the Convention, holds the key: *"the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs".*

39. The Preamble (para 6) also categorically acknowledges and underscores that an "effective and appropriate international response" shall have to be strictly in consonance with the principle of CBDR-RC. Both the Preamble as well as Article 3 of the UNFCCC repeatedly affirm the following:

    i. Share of global emissions originating in developing countries will grow to meet their social and development needs;

    ii. Principle of CBDR-RC;

    iii. Countries' social and economic development needs;

    iv. Countries' social and economic conditions;

    v. Responses to climate change should take in to full account the legitimate priority needs of developing countries for the achievement of sustained economic growth and poverty eradication;

    vi. Recognizes that low-lying and other small island countries are particularly vulnerable to the adverse effects of climate change;

    vii. Special difficulties of 'developing countries', whose developing economies are particularly dependent on fossil fuel production, use and exportation, as a consequence of action taken on limiting greenhouse gas emissions;

    viii. Developing countries need access to resources as well as their energy consumption will need to grow;

    ix. Responses to the climate change should be taking into full account the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty;

x. The specific needs and special circumstances of developing country Parties those Parties especially developing country Parties that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration [Article 3(2), UNFCCC];

xi. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade [Article 3 (5), UNFCCC];

40. The Parties are to strive for the UNFCCC's ultimate objective *(being "stabilization of greenhouse gases concentrations in the atmosphere"[5])*, wherein the developed countries are to reduce their GHG for the attainment of the stabilization targets. This goal was not to be applicable, in the foreseeable future, to the developing countries, especially since the Convention obligated them to "address" rather than stabilize GHG emissions[6]. They were to commit themselves to appropriate action, though it was recognized that their net emissions must grow from there, as yet relatively low, energy consumption to accommodate their development needs[7]. The Framework Convention obliges developed countries to protect and enhance carbon sinks[8] while the developing countries need only to "address" removal by sinks and "promote and cooperate in the conservation and enhancement, as appropriate, of sinks".[9]

41. Acknowledging, different contributions to global environmental degradation, Principle 7 of the Rio Declaration endorsed the principle of CBDR, wherein the developed countries acknowledged the responsibility that they bear in the international pursuit of sustainable development in

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[5] UNFCCC, Article 2

[6] UNFCCC, Article 4(1) (b) provides: "All parties taking into account their common but differentiated responsibilities and their specific national and development priorities, objectives and circumstances, shall: "Formulate, implement, publish and regularly update national and where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all GHG's not controlled by the Montreal Protocol , and measures to facilitate adequate adaptation to climate change".

[7] Anon (1990), "Second World Climate Conference Ministerial Declaration", *Environmental Policy and Law*, vol. 20, no.6, p.220, para 5 and 15.

[8] UNFCCC, Article 4(2) (a).

[9] UNFCCC, Article 4(1) (b), (d).

view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

42. The most obvious reason for the existence of differential obligations is the different contributions States make to the present state of environmental degradation. "Contribution to global degradation being unequal, responsibility…has to be unequal and commensurate with the differential contribution to such degradation. The developed States, over the decades, have derived economic benefits from the exploitation and degradation of the environment and hence they should be obligated to pay more, to enable the developing countries, to implement the provisions of the Convention.

A. DEVELOPED COUNTRIES TO TAKE THE LEAD

43. UNFCCC and its two instruments, while providing for the obligations of all the parties, explicitly requires the developed country Parties to "take the lead" in combating climate change, in view of their 'largest share of historical and current global emissions'.

44. The obligations of States under international law with respect to climate change rests on the operationalization of the principles of the UNFCCC, as in Article 3, particularly Article 3, para 1, that states*: "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."*

45. The science of the IPCC AR6 provides a powerful support to the foundational principles of the UNFCCC. According to the IPCC AR6 WGIII, (Ch. 2), developed countries have disproportionately appropriated the global commons in the form of the total carbon budget. Developed countries contributed 57% of cumulative emissions between 1850-2019 from fossil fuel, despite being only 16% of the current global population. Even taking account of LULUCF emissions, the developed countries have emitted 45% of cumulative emissions between 1850 and 2019. In view of developed countries' cumulative emissions being disproportionately high,

the developed countries have to compensate their excessive use of the total carbon budget.

46. In this regard, developed countries taking the lead, as enjoined in Article 3.1 of the Convention, implies that the developed countries should reach net zero substantially earlier than their currently announced dates as part of their Long-Term Low-Emissions Development Strategies under the terms of Paris Agreement. Further, this compensation will also require that they undertake urgent and substantial investment in negative emissions technologies to compensate for their profligate cumulative emissions, beyond their fair share of their global carbon budget.

47. While the UNFCCC has provided the fundamental framework for the principles of climate action and the fundamental obligations and commitments of countries, the gap between the current state of climate action and its inadequacy in protecting the climate system requires explanation. Scientific data demonstrates that this gap is, first and foremost, the consequence of the inaction of developed countries and the failure of Annex-I Parties to the UNFCCC to abide by their commitments under Article 4 of the Convention. With regard to the mitigation action by the developed countries, the following observations are pertinent:

i) The "Compilation and synthesis of the fifth biennial reports of Parties included in Annex-I to the Convention" prepared by the Secretariat of the UNFCCC (document no. FCCC/SBI/2023/INF.7, dated 17th October 2023, and FCCC/SBI/2023/INF.7/Add.1, dated 18th October 2023) in the Executive Summary and full Report states the following:

a) The reduction in emissions below 1990 levels in 2021 of Annex-I Parties is only 17.3% without LULUCF and with LULUCF is only 20.9%.[10]

[10] For all Annex I Parties taken together, total aggregate GHG emissions without LULUCF decreased by 20.8% in 1990–2020 (from 19,666 to 15,578 Mt CO2 eq) and by 17.3% in 1990–2021 (from 19,666 to 16,267 Mt CO2 eq). Total GHG emissions with LULUCF decreased by 25.3% in 1990–2020 (from 18,445 to 13,778 Mt CO2 eq) and by 20.9% in 1990–2021 (from 18,445 to 14,588 Mt CO2 eq). These trends are influenced by the differences in the trends in emissions of EIT Parties and non-EIT Parties, particularly in 1990–2000, which was marked by EIT Parties transitioning from planned to market-based economies, as well as by the differences in the trends in total aggregate GHG emissions in 1990–2000 and 2000–2021. (From p. 13 of FCCC/SBI2023/INF.7/ADD.1)

b) Of this the bulk of the reduction came from the severe restriction of output in the EIT countries, following their transition to market economies. However, the 38.8% reduction by 2021 below 1990 levels (non-LULUCF) actually masks a 41.5% decline by 2000 and a 4.6% increase between 2000 and 2021.[11]

c) In the case of non-EIT countries, namely the countries who constitute the richest countries in the world, the reduction in emissions below 1990 levels by 2021 was only 7.4% without LULUCF and only 8.8% with LULUCF.[12]

d) The emission reductions so far recorded also fall short of the recommendation of the IPCC Fourth Assessment Report[13] that called for emissions reduction of 25 to 40% below 1990 levels by 2020 by Annex I Parties.

B. OBLIGATION RELATED TO MEANS OF IMPLEMENTATION AND SUPPORT:

48. The ability of the developing countries to meet their obligations related to climate change is dependent upon the developed countries fulfilling their obligations on providing the means of implementation such as **climate finance, transfer of technology and capacity building**. The same is unambiguously spelled out in several articles of the UNFCCC and Paris

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[11] For EIT Parties, GHG emissions decreased by 38.8% without LULUCF and by 46.4% with LULUCF in 1990–2021. Significant emission reductions occurred between 1990 and 2000 (41.5% without LULUCF and 49.6% with LULUCF) owing to a decline in economic output stemming from the transition of EIT Parties to market based economies (see box 2 for an example). After 2000, emissions increased steadily owing to economic recovery, but decreased by 7.3% in 2009 (compared with the 2008 level) as a result of the global financial crisis. In 2010, emissions increased by 4.4%, but this increase was followed by a downward trend in 2013–2015. Between 2000 and 2021, emissions rose by 4.6% without LULUCF and by 6.4% with LULUCF. (From p. 13 of FCCC/SBI2023/INF.7/ADD.1)

[12] For non-EIT Parties, GHG emissions in 2021 were lower than those in 1990 by 7.4% without LULUCF and by 8.8% with LULUCF, although the total GDP of these Parties rose by about 86% over that period. This indicates a possible decoupling of economic growth and GHG emissions. Emissions increased by 8.8 and 8.0% in 1990–2000 without and with LULUCF respectively. A significant decrease in emissions occurred between 2000 and 2021 (14.9% without LULUCF and 15.6% with LULUCF), reflecting the combined effects of the global financial and economic crisis in 2008, the COVID-19 pandemic in 2020, and the PaMs put in place by the Parties. (From p. 13 of FCCC/SBI2023/INF.7/ADD.1)

[13] Box 13.7, Chapter 13, Working Group III contribution to IPCC Fourth Assessment Report.

Agreement[14]. Article 4.7 of UNFCCC states: *"The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties."*

i. Climate Finance

49. Climate finance is central for **enabling** developing countries to implement mitigation and adaptation actions. It is also about providing finances for just and equitable transition of their economies that these countries still need. The provision of climate finance from developed to developing country Parties is founded on the provisions of Articles 4.3, 4.4, and 4.5, UNFCCC.

50. The first quantification of the provision of climate finance by the developed countries was made at COP15 at Copenhagen in 2009 and targeted the provision of USD 100 billion annually by 2020. Decision 1/CP.21, adopting Paris Agreement "*strongly urges developed country Parties to scale up their level of financial support, with a concrete roadmap to achieve the goal of jointly providing US$ 100 billion annually by 2020 for mitigation and adaptation while significantly increasing adaptation finance from current*

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[14] Relevant references include:

Article 4.8, UNFCCC: "In the implementation of the commitments in this Article, the Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures, especially on..."

Article 9.1, Paris Agreement: "Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention."

Article 11.3, Paris Agreement: "All Parties should cooperate to enhance the capacity of developing country Parties to implement this Agreement. Developed country Parties should enhance support for capacity-building actions in developing country Parties."

Article 13. 9, Paris Agreement: "Developed country Parties shall, and other Parties that provide support should, provide information on financial, technology transfer and capacity-building support provided to developing country Parties under Articles 9, 10 and 11."

levels and to further provide appropriate technology and capacity-building support."

51. However, the performance of the Annex I Parties has still not reached this level. In 2019-2020, the total climate-specific finance contribution was only at USD 40.2 billion.[15]

52. At COP28, the developed countries claimed that their contribution of climate finance had reached USD 89.6 billion in which however must be read in the continuing divergences in the definition of climate finance which is itself the subject of ongoing negotiations under the UNFCCC.

53. Outcome of the first global stocktake (2023) at COP28 *notes with concern that the adaptation finance gap is widening, and that current levels of climate finance, technology development and transfer, and capacity-building for adaptation remain insufficient to respond to worsening climate change impacts in developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change.*[16]

54. Further, the dominance of loans rather than more affordable, inexpensive sources of finance such as grants from developed countries has remained a contentious issue. Another issue is that there is an imbalance between finance for mitigation and adaptation with an estimated 25% of reported public climate finance allocated to adaptation, compared with 66% for mitigation in 2017 - 2018.[17]

55. The developing countries have emphasized that new and additional sources of funding as envisaged under Articles 9.3 and 9.5 of Paris Agreement should be included over and above what has already been pledged / committed by the developed countries. For means of implementation and support, provision of finance should *inter alia* either be generic or public funding, as provided under Article 9.5 under Paris Agreement. There is a

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[15] See Fig. 25 in FCCC/SBI2023/INF.7/ADD.1

[16] Para 81; *Decision -/CMA.5 Outcome of the first global stocktake*; UAE Consensus; accessed at: https://unfccc.int/sites/default/files/resource/cma5_auv_4_gst.pdf

[17] Source: UNFCCC (2021), *In-session workshop on long-term climate finance in 2020 Summary report by the secretariat*, FCCC/CP/2021/6, 24 August 2021, accessed at https://unfccc.int/sites/default/files/resource/cp2021_06E.pdf

huge gap in the expectations of the developing countries and delivery of the promised Pre 2020 finance and other means of implementation by the developed countries. There is a **need for new and additional finances, over and above** the promised amount of financial assistance being mobilized, including clarity about what counts as 'new and additional' climate finance. Decision 12/CMA.1 recognized the importance of predictability and clarity of information on financial support by developed to developing country Parties.

56. Developing countries need access to climate finance to implement their climate action plans and adapting to the impacts of climate change.

(i) It has been highlighted that the needs of developing countries are in trillions, and concessional finance is crucial to avoid debt distress among developing countries. A vital point of reference is the first ever *Needs Determination Report of the developing countries* related to the implementation of the Convention and its Paris Agreement by the Standing Committee on Finance (SCF), published in October 2021. Based on information in countries' NDCs; National Communications; and Biennial Update Reports; and other national reports, the SCF mentions that requirements are in the range of USD 5.8 trillion to USD 11.5 trillion[18]. The need for climate finance is immense, even when the estimates do not capture all the identified needs. Therefore, it is essential to underline that an ambitious new collective quantifiable goal is imperative in achieving the NDCs.

(ii) As per the UNEP Adaptation Gap Report 2023, developing countries' adaptation costs/financing needs stand at about USD 387 billion/year for this decade.[19] This highlights not only the need to scale up adaptation finance, but to increase the new climate finance goal to well above USD 100 billion.

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[18] Source: UNFCCC (2021), Needs Determination Report of the developing countries related to the implementation of the Convention and its Paris Agreement by the Standing Committee on Finance (SCF), (October 2021)

[19] UNEP 2023. *Adaptation Gap Report 2023*. United Nations Environment Programme; accessed at: https://www.unep.org/resources/adaptation-gap-report-2023

(iii) It is estimated that USD 4 trillion per year needs to be invested in renewable energy up until 2030 to be able to reach the goal of net zero emissions by 2050, and investment of at least USD 4–6 trillion per year will be required for a global transformation to a low-carbon economy.[20] Further, it is estimated that adaptation could require yearly investments of USD 160-340 billion by 2030 and USD 315-565 billion by 2050.[21]

ii. Technology Transfer and Development

57. Commitments under the UNFCCC envisage facilitation of technology transfer from the developed countries to developing countries. However, progress in technology transfer has fallen short of the ambitious goals laid out in the UNFCCC and its Paris Agreement and technological progress has often failed to produce envisaged developmental results. This can be attributed to the absence of favorable enabling environment.

58. Technology's potential to address growing resource scarcity and worsening environmental degradation and climate change has been unrealized. While technology is a key means of implementation and support for Paris Agreement commitments, the issue of technology development and the transfer of environmentally sound technologies (ESTs) for climate mitigation is heavily contested between developed and developing countries; and these differences continue to persist as Paris Agreement is implemented. Progress in negotiations on technology transfer and development always faced obstacles due to the "relationship between intellectual property rights (IPRs) and technology transfer." Policymakers and Parties have been unable to find the right balance between access to technology and recompense for innovation, and it remains a fundamental challenge.

iii. Capacity Building:

59. Capacity Building is a cross-cutting issue inextricably linked to recognizing the special needs of least developed countries and other developing

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[20] Source: Special Report on *Net Zero by 2050 A Roadmap for the Global Energy Sector*; International Energy Agency (IEA) (2021); accessed at: https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf

[21] Source: United Nations Environment Programme (2022). *Adaptation Gap Report 2022: Too Little, Too Slow – Climate adaptation failure puts world at risk*; Nairobi; accessed at: https://www.unep.org/adaptation-gap-report-2022

countries. There is also a need for capacity-building for policy coherence and integrated approaches to sustainable development in all countries. Consistent with the principle of equitable access to sustainable development, an institutional arrangement is required to ensure that all developing countries receive capacity building and capability enhancement support for designing and operationalization of their long-term low carbon development plans.

60. Without the needed finance and technology transfer, developing countries are left to undertake climate actions on their own resources which are often constrained by other challenges, in the context of pursuit of sustainable development goals, including efforts to eradicate poverty.

VI.
EQUITABLE ACCESS TO THE CARBON BUDGET FOR CLIMATE JUSTICE

61. The human-induced climate change is a consequence of more than a century of net-GHG emissions from unsustainable energy-use, land use and land-use change, lifestyle and patterns of consumption and production. The available carbon global budget, which is consistent with achieving the temperature goal of the Paris Agreement, is rapidly depleting. IPCC AR6 indicate that more than four-fifths of the total carbon budget for a 50% probability of limiting global warming to 1.5 °C and about two-thirds of the total carbon budget for limiting global warming to 2 °C warming have been exhausted.

62. It is evident from successive reports of the IPCC that historical emissions and the use of the world's carbon budget are not equitably distributed. There are inequalities in the distribution of per capita annual emissions across different countries and regions. This implies that Parties are undertaking climate action from different contexts and starting points, and hence, there will be differentiated and equitable pathways to achieve Paris Agreement temperature goals based on equitable access to the total carbon budget and based on their national circumstances.

63. Developed countries have disproportionately appropriated the global commons in the form of the total carbon budget. According to the IPCC reports:

(i) Developed countries sustained high levels of per capita CO2-FFI emissions at 9.5 tCO2 per capita in 2019 (but with a wide range of 1.9–16 tCO2 per capita). This is more than double that of three developing regions: 4.4 (0.3–12.8) tCO2 per capita in Asia and Pacific; 1.2 (0.03–8.5) tCO2 per capita in Africa; and 2.7 (0.3–24) tCO2 per capita in Latin America.[22]

(ii) Globally, the 10% of households with the highest per capita emissions contribute 34–45% of global consumption-based household GHG emissions, while the middle 40% contribute 40–53%, and the bottom 50% contribute 13–15%.[23]

(iii) Developed countries contributed 57% of cumulative emissions between 1850-2019 from fossil fuel, despite being only 15% of the global population in 2019[24].

(iv) Even taking account of LULUCF emissions, the developed countries have emitted 45% of cumulative emissions between 1850 and 2019. [25] (or three times their proportion in the global population.)

64. Annex-I countries are the only ones with binding commitments prior to Paris Agreement (pre-2020 commitments). The pre-2020 commitments, however, have not been fulfilled, leading to the rapid depletion of the remaining carbon budget (to keep the temperature goals of Paris Agreement within reach) for the developing countries to permit their subsistence emissions in the pursuit of sustainable development and poverty eradication. The outcomes of first global stocktake (GST) at COP28 noted with concern the pre-2020 gaps in both mitigation ambition and implementation by developed country Parties and that the IPCC had earlier

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22 IPCC AR6 Working Group III (Ch. 2)

23 Summary for Policymakers of the IPCC AR6 WGIII report, para B.3.4

24 IPCC AR6 Working Group III (Ch. 2)

25 IPPC AR6 Working Group III (Ch. 2)

indicated that developed countries must reduce emissions by 25–40% below 1990 levels by 2020, which was not achieved.

65. From 1990 to 2021, total aggregate GHG emissions without LULUCF for all Annex I Parties decreased by 17.4%, from 19,279.12 to 15,928.92 Mt CO2 eq. During the same period, total aggregate GHG emissions with LULUCF decreased by 21.1%, from 18,064.77 to 14,247.17 Mt CO2 eq. For Annex I non-EIT Parties, GHG emissions decreased by 7.4% without LULUCF and by 8.8% with LULUCF from 1990 to 2021. From 2000 to 2021, GHG emissions without and with LULUCF decreased by 14.9 and 15.6% respectively. Between 2020 and 2021, GHG emissions without and with LULUCF increased by 4.4% and 5.3% respectively.[26] It is evident that emissions of developed countries are at a considerable distance from the levels recommended by the IPCC Assessment reports.

66. The UNFCCC Climate Change Secretariat Report Assessing the overall aggregated effects of steps taken by Parties on mitigation[27], states that between 2008-2012, Annex I countries reduced emissions by only 5%. Thereafter, even after taking on the commitment to cut their GHGs emissions at least by 18% relative to 1990 levels between 2013-2020, the actual achievement is only 13%.

67. The 2030 and 2050 mitigation ambition of developed countries remain inadequate. Developed countries need to take the lead by undertaking economy-wide absolute emission reduction targets, including urgently closing Pre-2020 mitigation gaps, and revisit and strengthen their 2030 targets in their nationally determined contributions (NDCs), based on their contribution to historical cumulative emissions and the need for an equitable distribution of the global carbon budget. Developed countries need to take the lead in revising their 2025 NDCs to include economy-wide net-zero GHG emission reduction targets in their revised NDCs, to be

[26] Source: UNFCCC Secretariat; *Compilation and synthesis of fifth biennial reports of Parties included in Annex I to the Convention*; FCCC/SBI/2023/INF.7/Add.1; 17 October 2023; accessed at: https://unfccc.int/sites/default/files/resource/sbi2023_inf07a01.pdf

[27] Source: UNFCCC Secretariat (November 2020), Assessing the overall aggregated effects of steps taken by Parties on mitigation, Slide 4 presented at the Pre 2020 Roundtable at the November Climate Dialogues, 2020, available at: https://unfccc.int/sites/default/files/resource/2.1%202020_CD_GST_InputsOnMitigation_26%20Nov %20ver.pdf

achieved immediately and significantly ahead of 2050, preferably by 2030, and achieve net-negative GHG emissions immediately thereafter.

Equitable access to total carbon budget for developing countries

68. Developing countries, which are not historically responsible for climate change, have to cope with multiple development deficits while the drastic reduction in the remaining carbon budget constrains their development.

(i) The IPCC AR6 WGIII SPM notes: "Another 41% live in countries emitting less than 3 tCO2-eq per capita. A substantial share of the population in these low-emitting countries lack access to modern energy services."

(ii) Provision of adequate energy is key to development. Restricting developing countries' needs and aspirations for growth to the achievement of the Sustainable Development Goals (SDGs) alone cannot be the benchmark as these are only short-term goals until 2030.

69. The Right to Development is a right recognized by the UN Resolution (UNGA Res. 41/128, 1986) that notes, inter alia

(*Article 1, para a*:) *"The right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized.*"

Article 3 and Article 4 of the Resolution are of particular relevance to the issue before the Court in this submission[28].

[28] UNGA Res. 41/128 Article 3: 1) States have the primary responsibility for the creation of national and international conditions favourable to the realization of the right to development.; 2) The realization of the right to development requires full respect for the principles of international law concerning friendly relations and co-operation among States in accordance with the Charter of the United Nations.; 3) States have the duty to co-operate with each other in ensuring development and eliminating obstacles to development. States should realize their rights and fulfil their duties in such a manner as to promote a new international economic order based on sovereign equality, interdependence, mutual interest and co-operation among all States, as well as to encourage the observance and realization of human rights.

Article 4: 1) States have the duty to take steps, individually and collectively, to formulate international development policies with a view to facilitating the full realization of the right to development.; 2) Sustained action is required to promote more rapid development of

70. The UNFCCC recognizes and underlines the fundamental significance and importance to developing countries of the right to development in the context of climate change. For example, its Article 3 para 4 says,

"The Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change."

Other references to development in the Convention, which are particularly relevant to this Case are in, inter alia, the preamble[29] and Article 4, para 7[30].

71. The necessity of economic development for addressing climate change as noted in Article 3, para 4 of the Convention has been reaffirmed scientifically in a wide variety of contexts across the scientific and technical literature. The importance of socio-economic development to deal with climate change and its impacts is strongly affirmed in the science of IPCC.

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developing countries. As a complement to the efforts of developing countries, effective international co-operation is essential in providing these countries with appropriate means and facilities to foster their comprehensive development.

29 Relevant references in the preamble of UNFCCC include the following:

"Affirming 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."

"Recognizing that 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 taking into account the possibilities for achieving greater energy efficiency and for controlling greenhouse gas emissions in general, including through the application of new technologies on terms which make such an application economically and socially beneficial."

"Noting that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs."

30 The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.

For example, in the Summary for Policymakers (SPM) of the IPCC AR6 Working Group II Contribution it is repeatedly noted in the SPM as follows:

i. "Regions and people with considerable development constraints have high vulnerability to climatic hazards (high confidence). Global hotspots of high human vulnerability are found particularly in West-, Central- and East Africa, South Asia, Central and South America, Small Island Developing States and the Arctic (high confidence)." (SPM, Para B.2.4)

ii. "Vulnerability is higher in locations with poverty, governance challenges and limited access to basic services and resources, violent conflict and high levels of climate-sensitive livelihoods (e.g., smallholder farmers, pastoralists, fishing communities) (high confidence)." (SPM, Para B.2.4)

iii. "Vulnerability at different spatial levels is exacerbated by inequity and marginalization linked to gender, ethnicity, low income or combinations thereof (high confidence)." (SPM Para B.2.4)

iv. "Present development challenges causing high vulnerability are influenced by historical and ongoing patterns of inequity such as colonialism (high confidence)." (SPM Para B.2.4)

72. Further, in the Synthesis Report (SYR) of the IPCC AR6, the following is noted: "Regions and people (3.3 to 3.6 billion in number) with considerable development constraints have high vulnerability to climatic hazards (see A.2.2). Adaptation outcomes for the most vulnerable within and across countries and regions are enhanced through approaches focusing on equity, inclusivity and rights-based approaches. Vulnerability is exacerbated by inequity and marginalization linked to e.g., gender, ethnicity, low incomes, informal settlements, disability, age, and historical and ongoing patterns of inequity such as colonialism, especially for many Indigenous Peoples and local communities. (Para C.5.3, SYR)"

73. Several such references may be found throughout the IPCC AR6 Reports and their SPMs. These references to development are comprehensive and relate to the importance of varied non-climate related drivers of development. Hence development cannot be reduced merely to climate action and co-benefits of such actions. The science of the IPCC-AR6 provides powerful support to the foundational principles of the UNFCCC.

74. Therefore, India contends that the obligations of States under international law rests on the operationalization of the principles of the UNFCCC, as in Article 3, particularly Article 3, para 1, that states:

"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."

75. Article 3, para 5, UNFCCC also provides the right of all Parties, but particularly developing countries to sustainable economic growth and development, thus enabling them better to address the problems of climate change.

76. In this regard, India submits further as follows:

That the protection of the climate system implies in the first instance, that the rise in global average surface temperatures should be limited to the extent that feasible high ambition allows, which has been agreed to by countries as the long-term temperature goal of Paris Agreement under the Convention.

i. That since this limit on temperature increase is determined by cumulative emissions from the pre-industrial period up to net zero, that is the total carbon budget, equity implies the equitable share of this total carbon budget among all countries.

ii. That common but differentiated responsibilities of countries, in the context of protecting the climate system as per Article 3.1, will be based on the responsibility for historical emissions and ensuring that the cumulative emissions of each country from the pre-industrial era to net zero does not exceed their equitable share of the total carbon budget.

iii. In view of developed countries' cumulative emissions being disproportionately high, the developed countries have to compensate their excessive use of the total carbon budget.

iv. In this regard, developed countries taking the lead, as enjoined in Art 3.1 of the UNFCCC, implies that the developed countries should reach net-zero substantially earlier than their currently announced dates[31] as part of their Long-Term Low-Emissions Development Strategies under the terms of Paris Agreement. Further, this compensation will also require that they undertake urgent and substantial investment in negative emissions technologies to compensate for their profligate cumulative emissions, beyond their fair share of their global carbon budget.

VII.
CLIMATE CHANGE AND HUMAN RIGHTS

77. Paris Agreement, in its preamble, acknowledges that climate change is a common concern of humankind and insists that Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity.

78. The Human Rights Council has adopted series of resolution and targeted clarifications of the ways climate change affects human rights- the right to food (50/9 of 2022), the rights of people in vulnerable situations (47/24 of 2021), rights of older persons (44/7 of 2020), rights of persons with disabilities (42/21 of 2019), gender-responsive approach (38/4 of 2018), rights of migrants and displaced persons (35/20 of 2017), etc.[32] Moreover,

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[31] *Total* 32 Annex – I countries and 6 EITs have declared their net zero target years, out which 26 Annex – I countries and 5 EITs have declared 2050 as their net zero target year and only 5 Annex – I countries have declared pre-2050 (between 2035 – 2045) as their net zero target years. Also, 3 Annex – I countries and 2 EITs have still not declared their net zero target years.

[32] Other relevant HRC resolutions include, resolution 32/33 (2016), 29/15 (2015), 26/27 (2014), 18/22 (2011), 10/4 (2009), and 7/23 (2008). In addition, the Council has also adopted series of resolution addressing the issue of climate change within the framework of human rights and

the UN General Assembly also adopted a resolution recognizing the right to a clean, healthy, and sustainable environment as a human right (A/76/300 of 2022).[33] The resolution calls upon States, international organizations, businesses, and other stakeholders to "scale up efforts" to ensure a clean, healthy, and sustainable environment for all.

79. Countries worldwide are gradually putting in place climate-related policies, recognizing the imperative to safeguard the planet for future generations. However, as these policies are formulated and implemented, it's crucial to ensure that they do not unduly impinge upon the rights of individuals, especially those who are most vulnerable. Any policy framework on climate change must strike a delicate balance between safeguarding individual human rights, while fulfilling the global responsibility to address the effects of climate change.

VIII.
LEGAL CONSEQUENCES

80. Climate change is an undeniable reality. The adverse impacts of climate change and the historical contribution of different States to the problem are recognized in the UNFCCC. The general obligations and obligations prescribed in multilateral environmental agreements (MEAs) relating to climate change have indeed prescribed a range of differentiated obligations on States to combat climate change. However, the overriding priorities for the developing countries recognized under the UNFCCC and the Paris Agreement are, and continue to remain, poverty eradication, and sustainable development. All climate actions, in some fundamental respects, are complementary to these overriding priorities.

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environment, which includes: resolution 16/11 (2011), 19/10 (2012), 25/21 (2014), 28/11 (2015), 31/8 (2016), 34/20 (2017), 37/8 (2018), 46/7 (2021) and 48/13 (2021)

[33] The Human Rights Council also adopted a similar resolution (48/13 of 2021), entitled "The human right to a clean, healthy and sustainable environment".

81. Means of implementation and support are the critical enablers for developing countries' abilities to contribute to global action to combat climate change. The UNFCCC while recognizing this aspect, provides that *"the extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties" (Art. 4.7)*.

Any fair or meaningful assessment of obligations of States cannot, therefore, be conducted without simultaneously assessing the support provided and received by the developed and developing countries respectively.

82. The international law on State Responsibility as reflected in the International Law Commission (ILC) Articles[34] on *Responsibility of States for Internationally Wrongful Acts*, 2001 is the applicable law in this regard. Although, the document has not been yet transformed into a treaty, there exists a consensus on its normative value. As a result, the rules enshrined in the document are widely used by courts and tribunals at the international level. *Materials on the Responsibility of States for Internationally Wrongful Acts* (2nd Ed. 2023) published by the UN has recorded a total of 453 instances in which international courts, tribunals and other bodies have referred to the Article on State Responsibility.

83. As per the ILC Articles, every internationally wrongful act by a state leads to responsibility of that state (Article 1, ILC Articles). The term *internationally wrongful act* may include action or omission or a combination of both. The notion of responsibility for wrongful conduct is a basic element in the possession of international legal personality. Two conditions are to be met in order to constitute an internationally wrongful act (Article 2, ILC Articles):

[34] https://legal.un.org/ilc/texts/instruments/english/draft_articles/9_6_2001.pdf ; https://legal.un.org/legislativeseries/book25.shtml

i) First, the conduct in question must be attributable to the State under international law.

ii) Second, for responsibility to attach to the act of the State, the conduct must constitute a breach of an international legal obligation in force for that State at that time.

84. The typical scenario covered under here is one or more specific actions by a state in violation of international law attributable to that state and the consequent damage to one or more other States to whom the former owes the obligation under international law. Thus, the key elements here are identifiable action or actions, identifiable actor or actors and identifiable injured party or parties. Further, the action or actions (or omissions) must be attributable to the state in question. This means, any action which may be contrary to international law in force, but may not be relevant if that action is not attributable to a state.

85. Thus, the typical scenario covered here are disputes between States on the basis of an action clearly identifiable in terms of place and time, for instance damage to a ship (e.g. *Corfu Channel* case) and violation of consular rights (e.g. *Kulbhushan Jadhav,* ICJ 2019) and violation of sovereignty and territorial integrity (e.g. *Nicaragua* 1986).

86. The adverse effects caused by the impacts of the climate change do not fit into this typical, classical States' responsibility scenario. However, the issue needs to be addressed in a different and constructive way.

87. The question of ***attributability*** does not arise in the context of climate change as it exists in other state responsibility cases, because specific actions that contribute to climate change may have been carried out by other States across a long span of time. The issue at hand, therefore, needs to be approached differently. One way is to look at the aggregate national contribution of States to the problem and to match that with the quantified commitments different state parties have undertaken under international law. For instance, commitments under the 1997 Kyoto Protocol are an obligation of outcome quantifiable in terms of emission of GHGs. While there is no hierarchy among different violations, the diffused nature of the case of climate change probably warrants a primary focus on the obligations of developed countries mainly because of three reasons.

i) *First,* as per the scientific consensus on the subject of the climate change, it is indisputable that developed countries have contributed to the problem, historically as well as in the present, far more than the developing countries and lesser developed countries.

ii) *Second*, they have the financial and technological resources to address the problem.

iii) *Third*, the UNFCCC and its Paris Agreement impose obligations on developed countries to continue taking lead by undertaking economy-wide absolute emissions reduction targets.

Therefore, it can be surmised that the primary responsibility to fulfill obligations under the existing climate change treaty regime rests on developed countries.

88. Similar exercise needs to be done to assess the breach of the general obligation of conduct. This could be checked by assessing various policies and measures taken by States in accordance with their international law obligations. In this regard, it would be fair to focus on developed countries for the same reasons stated above. If a State fails to comply with its obligations, it will, invariably, amount to a continuing breach or a breach with continuing effect. This aspect is clearly covered under the ILC Articles (Art 14). In such cases, breach is also continuing in nature and therefore a State will be considered in breach of its international law obligations for the whole period.

89. Determination of breach is to be followed by remedies. The first and perhaps the most important remedy in the context of climate change is ***"cessation and non-repetition"***. As per Art 30 of the ILC Articles, the State responsible for the internationally wrongful act is under an obligation, first to cease that act, if it is continuing; and second, to offer appropriate assurances and guarantees of non-repetition. Both these remedies should be seen in the light of the ultimate objective of the UNFCCC which is stabilization of GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with climate system, and the developed countries taking the lead. Given the fact that violations (GHG emissions) are continuing in nature in almost all cases, the most logical and effective remedy is cease breach, which means the States responsible need

to, *inter-alia*, reorganize or start undertaking domestic measures to fulfill their obligations. Guarantees of non-repetition is also important because it may bring trust among state parties and may encourage collective actions. As highlighted before, the issue won't be addressed effectively until and unless all the developed countries fulfil their obligations in letter and spirit.

90. The second major remedy prescribed is ***"full reparation"*** **(**Art 31). Reparation may take three forms, that is, *restitution, compensation and satisfaction* (Arts 34-37). ***Restitution*** involves the re-establishment as far as possible of the situation which existed prior to the commission of the internationally wrongful act. As it may take several decades to bring anthropogenic climate change under control, as envisaged under international law, restitution may seem unsuitable, in the case of climate change. Article 36 of the ILC Articles deals with ***compensation*** for damage caused by an internationally wrongful act, to the extent that such damage is not made good by restitution. This remedy is meant for financially assessable damage including loss of profits. Compensation is the most commonly sought remedy in international practice. In the *Gabčíkovo-Nagymaros Project* case, ICJ declared that: "It is a well-established rule of international law that an injured State is entitled to obtain compensation from the State which has committed an internationally wrongful act for the damage caused by it". It is perhaps effective in disputes where there is one or more injured parties and one or more responsible parties. In the context of climate change, it may be difficult to attribute responsibility and point out a particular injured State. However, it is a well-established fact that developing countries, including small island developing countries, are particularly vulnerable to the adverse effects of climate change. The remedy of compensation should be worked out in a way to let the compensation be made available for these countries, from the existing or planned financial assistance, including the Loss and Damage Fund, operationalized (by a decision at COP28) under the UNFCCC. ***Satisfaction***, third form of reparation (Art 37) which may consist of acknowledgement of the breach, an expression of regret, a formal apology or another appropriate modality may not be suitable to assess consequence arising out of adverse impacts of climate change.

IX.
CLIMATE CHANGE AND INDIA

91. India and its population are vulnerable to all possible manifestations of climate change, such as increased summer and winter temperatures, erratic and uncertain precipitation across space and time leading to floods and droughts, increased frequency and intensity of wind and storm events, sea level rise and an increase in sea surface temperature[35]. With the highest mountain range in the world, the Himalayas to its North, the Thar desert to its West, the Gangetic delta to its East and the Deccan Plateau in the South, India is home to a vast agro-ecological and physiographic diversity. More than 50 per cent of its population depends on climate-sensitive sectors of agriculture, fisheries, natural ecosystems, and forestry for their livelihoods.

92. India is already experiencing the ecological, economic, and social consequences of global warming. There is a projected change in habitat types, such as forest vegetation cover, due to climate change. Changing hydrological cycles, extreme heatwaves, heavy rainfall and flooding events, storms, and rising sea levels are also damaging lives, livelihoods, and natural assets across the country. There is emerging scientific evidence of the impact of climate change on ecosystems and landscapes in India, with the observed changes in species composition, productivity, and biodiversity.

93. In other words, India, relatively has a low to moderate adaptive capacity to withstand the adverse impacts of climate change due to the high dependence of the majority of the population on climate-sensitive sectors, coupled along with developmental challenges and limited financial resources. India is, therefore, concerned with the possible impacts of climate change and growing incidences of extreme weather events.

94. In spite of India being vulnerable to climate change, despite having contributed little to global warming historically, and the fact that its current per capita GHG emissions are about a third of the global average, India has actively contributed to the global fight against climate change and its

[35] India's third national communication to UNFCCC (December 2023)

impacts. India leads by example and has taken strong, ambitious and decisive climate actions.

95. India also voices the concerns of developing countries and continues to emphasise that climate actions in India and other developing countries can be further accelerated only through enhanced climate finance and visible leadership by developed countries in emissions reduction and in providing means of implementation and support in finance, technology development and transfer, and capacity building.

96. India's responsibility towards mitigation of GHG emissions is low by any equitable measure of responsibility. India is the most populous country globally, and currently, is home for 17.8% of the global population. However, India has contributed only about 4% to global cumulative emissions historically between 1850 and 2017. Even after 1990, entering a period of rapid economic growth, India's contribution to global cumulative emissions has only been 4.9%. India's per capita GHG emissions (including LULUCF[36]) in 2016, were 1.96 tCO2e which is less than one third of the world's per capita GHG emissions (6.55 t CO2e) for the same year.

97. India has more than fulfilled its fair share of climate obligations. Developing countries, such as India, were not bound by stringent targets under Kyoto Protocol. And yet, India took an ambitious voluntary target to reduce the emissions intensity of its GDP by 20%-25% by 2020 over 2005 levels, against which India's emission intensity has reduced by 33% between 2005 and 2019 clearly showing an over-achievement of the voluntary target undertaken.

98. India has submitted its Nationally Determined Contributions (NDCs) for the period of 2021-2030 under the Paris Agreement. India's NDC commitments and other climate change related commitments are being met through the implementation of the National Action Plan on Climate Change (NAPCC). India has successfully decoupled its economic growth from GHG emissions. India achieved 33% reduction in emission intensity of its GDP between 2005- 2019, thereby achieving, 11 years in advance, its original 2030 target (of 33-35% reduction). This target was enhanced to 45% in the updated NDC of 2022. Similarly, our cumulative installed electricity capacity from non-

[36] Land Use, Land-Use Change and Forestry (LULUCF); refer UNFCCC https://unfccc.int/topics/land-use/workstreams/land-use--land-use-change-and-forestry-lulucf

fossil sources has crossed 44% in 2023, exceeding the original NDC target set for 2030. This target too has been enhanced to 50% in the updated NDC.

99. India has submitted its updated NDC on 26 August 2022 to the UNFCCC. India also submitted its Long-Term Low Emissions Development Strategy (LT-LEDS) to the UNFCCC on 14 November 2022. Both the aforesaid documents lay out India's vision and approaches towards reaching net-zero by 2070.

100. India also submitted the Initial Adaptation Communication to UNFCCC. India has been diligently working towards adaptation in mission mode. India has been spending significant amount of resources on adaptation relevant actions, despite the competing demands for limited resources in a developing economy.

101. India has mainstreamed climate and environment considerations in its development policies and priorities. The Government has undertaken many initiatives to scale up India's climate actions across many sectors including water, renewable energy, agriculture, forest, sustainable mobility and housing, waste management, circular economy and resource efficiency, etc., both at the national and the State levels.

102. India's climate actions so far have been largely financed from domestic resources. India's voluntary actions and achievements have been despite the lack of means of implementation, which were to be made available by the developed countries as obligated under the UNFCCC and its Paris Agreement. India increasingly needs new and additional financial resources as well as transfer of technology to pursue its vision of low carbon development, taking into consideration the need to ensure India's high energy needs for development, including poverty eradication, achieving Sustainable Development Goals and economic growth.

103. **India on Climate Change and Human Rights:** The Constitution of India guarantees right to life, a crucial component of which is the right to clean and healthy environment. A range of legislations including the Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986, Biological Diversity Act, 2002, etc., have been enacted to safeguard and protect the environment. Policy action in India has evolved on the fundamental premise that development must be ecologically sustainable. To that end, in 2008, India adopted the National Action Plan on Climate Change (NAPCC), which

embodied India's vision of ecologically sustainable development and integrated climate action strategies in several sectors, such as energy, industry, agriculture, water, forests, urban spaces and the fragile mountain ecosystems. One of the principles of NAPCC is to protect the poor and vulnerable sections of society through an inclusive and sustainable development strategy, sensitive to the climate change.

104. Beyond its domestic climate actions, India has also pioneered, together with partner countries, some important global initiatives including: i) **International Solar Alliance** (ISA) – a global alliance of about 100 member countries working together for increased deployment of solar energy technologies; ii) **Coalition for Disaster Resilient Infrastructure** (CDRI) – a coalition of international agencies and over 30 member countries working towards promoting the resilience of infrastructure systems to climate and disaster risks in support of sustainable development; iii) **Infrastructure for Resilient Island States** (IRIS) – an initiative dedicated to promote resilient, sustainable, and inclusive infrastructure development in Small Island Developing States; iv) **Leadership Group on Industry Transition** (LeadIT) – to foster collaboration among decision-makers in public and private sectors towards accelerating industry transition, v) **Global Biofuel Alliance (GBA)-** to expedite the global uptake of biofuels through facilitating technology advancements, intensifying utilization of sustainable biofuels; vi) **Global Green Credit Initiative-** to facilitate global collaboration/cooperation in planning, implementation and monitoring of environment positive actions; etc. Further, the **India-UN Development Partnership Fund** supports demand-driven and transformational sustainable development projects across the developing world with a focus on least developed countries and SIDS. India has also launched the **Mission** Lifestyle for Environment (**LiFE**), a global campaign for promotion of sustainable lifestyles and sustainable patters of production and consumption. Through various initiatives, India has been assisting developing countries in scaling up use of renewable energy, developing climate disaster risk financing framework, climate information and early warning systems in vulnerable communities and capacity building.

105. **More details on climate change and India are at Annexure – I.**

X.
CONCLUSIONS

106. For the reasons stated above, the Republic of India contends that, the Court, while rendering its Advisory Opinion on the request of the UN General Assembly, vide UNGA resolution 77/276 of 29 March 2023, may wish to consider the following:

i. There are obligations of States under general international law for controlling transboundary harm. However, the obligations of States with respect to climate change are under the 1992 UNFCCC, and its instruments- the 1997 Kyoto Protocol, and the 2015 Paris Agreement.

ii. The UNFCCC and its two instruments aim to strengthen the global response to the threat of climate change in context of sustainable development and poverty eradication.

iii. In rendering its advisory opinion, the Court may exercise due caution to avoid devising new or additional obligations beyond what is already agreed under the existing climate change regime, which takes into consideration the historical emissions, climate justice and the principles of equity and common but differentiated responsibilities and respective capabilities (CBDR-RC), including equitable access to the global carbon budget.

iv. The obligations of States with respect to climate change are differentiated as they are guided by climate justice and principles of equity, and CBDR-RC.

v. Developed countries have the obligation to continue taking the lead by undertaking economy-wide absolute emission reductions, and also providing means of implementation and support, in terms of climate finance, technology transfer and capacity building, for the developing countries.

vi. Fulfilment of obligations by the developed countries, including providing the means of implementation and support, are critical enablers for developing countries to take effective climate action. Any fair or meaningful assessment of obligations of States cannot,

therefore, be conducted without simultaneously assessing the support provided.

vii. Considering intra-generational and inter-generational equity, developing countries deserve equitable access to the total carbon budget in the pursuit of their climate goals, while simultaneously pursuing sustainable development and poverty eradication. Achieving global net-zero by mid of 21st century requires developed countries to achieve net-zero much earlier and become net-negative thereafter, to allow developing countries to have a fair and equitable share of the global carbon budget.

viii. The science of climate change has been reflected and operationalized in the principles, objective and obligations under the UNFCCC and its instruments- Kyoto Protocol and Paris Agreement.

ix. Adherence to climate justice and the principle of equity is essential for determining injury, and attributing responsibilities, and disregarding the same may result in grave harm to developing countries that have not been primarily responsible for the consequences of climate change.

x. Strengthening of the Loss and Damage Fund, established under the UNFCCC for assisting developing countries that are particularly vulnerable to the adverse effects of climate change, is important in responding to loss and damage due to climate change.

xi. Notwithstanding the fact that India is a developing country, and not responsible historically for climate change, India has made ambitious voluntary commitments for climate actions and implemented those commitments.

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H.E. Mrs. Reenat Sandhu
Ambassador of India to the Kingdom of the Netherlands

The Hague, 21 March 2024

ANNEXURE – I:

CLIMATE CHANGE AND INDIA

1. With the highest mountain range in the world, the Himalayas to its North, the Thar desert to its West, the Gangetic delta to its East and the Deccan Plateau in the South, India is home to vast agro-ecological and physiographic diversity. More than 50 per cent of its population depends on climate-sensitive sectors of agriculture, fisheries, natural ecosystems, and forestry for their livelihoods. This makes India and its population vulnerable to all possible manifestations of climate change, such as increased summer and winter temperatures, erratic and uncertain precipitation across space and time leading to floods and droughts, increased frequency and intensity of wind and storm events, sea level rise and an increase in sea surface temperature.

2. India is already experiencing the ecological, economic, and social consequences of global warming. In 2021, Indian Meteorological Department reported increasing trend of 1 deg. C/ 100 years in annual mean temperature over India during the period of 1901 to 2021. There is a projected change in habitat types, such as forest vegetation cover, due to climate change. Changing hydrological cycles, extreme heatwaves, heavy rainfall and flooding events, storms, and rising sea levels are also damaging lives, livelihoods, and natural assets across the country. There is emerging scientific evidence of the impact of climate change on ecosystems and landscapes in India, with the observed changes in species composition, productivity, and biodiversity.

3. In other words, India, relatively has a low to moderate adaptive capacity to withstand the adverse impacts of climate change due to the high dependence of the majority of the population on climate-sensitive sectors, coupled along with developmental challenges and limited financial resources. India is, therefore, concerned with the possible impacts of climate change and growing incidences of extreme weather events.

4. In spite of these challenges, India has actively contributed to the global fight against climate change and its impacts despite having contributed little to global warming historically and the fact that its current per capita GHG

emissions are about a third of the global average. India leads by example and has taken strong, ambitious and decisive climate actions.

5. India emphasizes that it leads by example and has taken strong, ambitious and decisive climate actions. India is always a part of the solution and continues to play an affirmative role towards fighting climate change.

I. HISTORICAL CONTRIBUTION TO CLIMATE CHANGE

1. India is currently home to 17.8 % of the global population. India's per capita GHG emissions (including LULUCF) in 2016, were 1.96 tCO2e which is less than one third of the world's per capita GHG emissions (6.55 t CO2e) for the same year. India's per capita emissions of 2.46 tCO2e in 2019 are well below the global average of 4.79 tCO2e.

2. Historically, between 1850 and 2017, India has only contributed about 4% to global cumulative emissions.[37] India's responsibility towards mitigation of GHG emissions is therefore low, by any equitable measure of responsibility. As the Indian economy continues to grow rapidly, meeting India's developmental needs will require scaling up of infrastructure and energy use.

3. Developing countries such as India, were not bound by stringent targets under Kyoto Protocol and yet took an ambitious voluntary target to reduce the emissions intensity of its GDP by 20%-25% by 2020 over 2005 levels.

4. India has successfully decoupled its economic growth from greenhouse gas emissions. India achieved 33% reduction in emission intensity of its GDP between 2005- 2019, thereby achieving, 11 years in advance, its original 2030 target [of 33-35% reduction]. Similarly, our cumulative installed electricity capacity from non-fossil sources has crossed 44% in 2023, exceeding the original NDC target set for 2030.

[37] Sources: India's Third Biennial Report to the UNFCCC (February, 2021) and India's Third National Communication to the UNFCCC (December, 2023)

5. Demonstrating a quantum jump in its climate ambition, India has already enhanced its climate targets in 2021, including reaching non-fossil energy capacity to 500 GW by 2030, meeting 50% of its energy requirements from renewable energy by 2030, reducing total projected carbon emissions by one million tonnes till 2030, reducing carbon intensity of economy by less than 45% by 2030, and achieving the net zero target by 2070.

6. India's commitments under the Convention and its Paris Agreement are such as to ensure efficient growth that will allow for development and contribute to mitigating GHG emissions. India's envisions creating a prosperous, sustainable, but not wasteful society, with transition to sustainable lifestyles and sustainable patterns of consumption and production[38], with developed country Parties taking the lead towards demand-side measures. This plays an important role in addressing climate change. India also emphasizes that efforts at poverty eradication, the ramping up of the provision of basic services and assuring well-being of all are also an integral part of intergenerational equity.

7. India's vision of low carbon development is based on the need to ensure India's high energy needs for development, including poverty eradication, achieving Sustainable Development Goals and economic growth. Further, it is necessary that the plan for the country's energy security is based both on the expansion of non-fossil fuel sources for power generation and rational utilization of fossil fuel resources.[39]

8. India being a developing country and second most populous country will have increasing GHG emissions trend, even while taking into account the effect of policies to reduce emissions like increase in use of renewable energy, electric

[38] Refer the landmark resolution adopted at UNEA-6 on promoting sustainable lifestyles, UNEP/EA.6/L.11 Also refer Press Information Bureau (PIB) 1 March 2024. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2010786

[39] Refer *India's Long Term Low Emissions Development Strategy (LT-LEDS)* submitted to the UNFCCC, 14 November 2022; accessed at: https://unfccc.int/sites/default/files/resource/India_LTLEDS.pdf and *India's Third National Communication* submitted to the UNFCCC, 9 December 2023; accessed at: https://unfccc.int/sites/default/files/resource/India-TNC-IAC.pdf

vehicles (EVs), creation of carbon sink etc. to project the values for future years.

II. INDIA'S EFFORTS AND KEY ACHIEVEMENTS

Some of India's key efforts to mainstream climate considerations in our national policies and domestic climate action are highlighted below, demonstrating that India is and will always be a part of the solution and not the problem:

1. India has submitted its updated NDC on 26th August 2022, India's achievements against its quantitative NDC targets, (compared to its 2015 targets), are as below:

NDC (2015)	Target (2030)	Achievement
Reduce emissions intensity of GDP	45% over 2005 levels	33% (2019)[40]
Non – fossil fuel based electric installed capacity	50% cumulative	44% (February 2024) As on 30th June 2023, the target was achieved 9 years ahead of the committed time.
Additional carbon sink	2.5-3.0 billion tons	1.97 billion tons (2019)

2. **ACTION TO MOBILIZE CLIMATE FINANCE**

   i. India's climate actions have so far been largely financed through domestic resources, including government budgetary support as well as a mix of market mechanisms, fiscal instruments and policy interventions. Provisions have already been embedded in the existing policies, schemes and programs to mobilise finance for fulfilling India's commitments towards global climate action. The annual Union Budget has incorporated India's climate change commitments in the normal budgeting process, and they are executed in various sectors by the Departments / Ministries concerned.

[40]Source: India's Third National Communication (December 2023)

ii. The Government is implementing National Action Plan on Climate Change (NAPCC) which provides an overarching policy framework for all climate actions. The NAPCC encompasses nine core missions in the specific areas of Solar Energy, Enhanced Energy Efficiency, Sustainable Habitat, Water, Sustaining the Himalayan Eco-system, Strategic Knowledge for Climate Change, Green India, Sustainable Agriculture and Human Health. These specific areas tackle core issues pertaining to climate change, outlining steps to simultaneously advance India's development and climate change related-objectives of adaptation and mitigation. Under the NAPCC, the Ministry anchoring the respective national mission is responsible for the implementation and laying down the budget provisions and actionable priorities for it.

iii. Green Growth has been identified as one of the seven priorities (SAPTARISHI) of the Union Budget in 2023 – 2024[41].

iv. USD 4.2 billion has been allocated for priority capital investments towards energy transition and net zero objectives, and energy security by Ministry of Petroleum & Natural Gas[42].

v. GOI has approved the final Sovereign Green Bonds (SGB) framework of India, which will strengthen India's commitments towards its NDC targets. The proceeds generated from issuance of such bonds will be displayed in Public Sector projects which help in reducing carbon intensity of the economy.[43] USD 966 million has already been raised in the first tranche of the SGBs.[44]

vi. To ensure availability of low-cost funds for Renewable Energy Projects, GOI raised Sovereign Green Bonds of USD 1.9 billion (approximately)

[41] PIB. https://static.pib.gov.in/WriteReadData/userfiles/file/ALLRELEASEENGLISH9GCJ.pdf

[42] PIB. 01.02.2023. https://pib.gov.in/PressReleasePage.aspx?PRID=1895291

[43] PIB. 09 November 2022. https://pib.gov.in/PressReleasePage.aspx?PRID=1874788

[44] PIB. 6 February 2023. https://www.pib.gov.in/PressReleasePage.aspx?PRID=1896724.

during FY 22-23. Out of the proceeds of Sovereign Green Bonds, USD 740 million (approx.) were dedicated for renewable energy.[45]

vii. Government of India (GOI) has launched Green Credit Programme Implementation Rules 2023 on 26th June 2023 to create a market-based mechanism for providing incentives in form of Green Credits to individuals, Farmer Producer Organisations, cooperatives, forestry enterprises, sustainable agriculture enterprises, Urban and Rural Local Bodies, private sectors, industries and organisations for environment positive actions.[46] The notification for the Green Credit Programme has been issued on 13th October 2023.[47]

3. **EMISSION REDUCTION –**

i. A number of steps are being taken to reduce emissions from thermal power plants (TPPs) in the country. Many TPPs have adopted use of efficient technologies i.e. from subcritical to supercritical and now using ultra-supercritical technology in order to improve efficiency, thereby reducing coal consumption and emissions. A total capacity of Supercritical/ Ultra-supercritical units of 63830 MW (92 Units) and 2120 MW (3 units) were commissioned till 31.10.2023. The capacity of about 8 GW comprising 99 units of inefficient and old thermal power generation units have already been retired during January 2018 to 15.10.2023.[48]

ii. GOI has issued policy on Bio-mass Utilization for Power Generation through Co-firing in Coal based Power Plants to use 5-10% blend of biomass pellets made, primarily of agro-residue along with coal after assessing technical feasibility viz. safety aspect, etc.

iii. Ministry of Power is implementing a market-based mechanism namely Perform, Achieve and Trade (PAT) scheme to enhance energy

[45] PIB. 7 December 2023 https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1983770

[46] Green Credit Programme Implementation Rules, 2023 – The Gazette of India Notification. Ministry of Environment, Forest and Climate Change, New Delhi dated 26th June 2023.

[47] PIB. 13.10.2023. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1967476

[48] PIB. 6 December 2023. https://pib.gov.in/PressReleasePage.aspx?PRID=1983097

efficiency in energy intensive large industries including Thermal Power Stations consuming more than 30,000 tonne of oil equivalent (toe) of energy per annum. Under this scheme, 226 Thermal Power Stations are covered, accounting for capacity of around 197 GW. This scheme mandates all Thermal Power Stations to reduce their Net Heat Rate over a period of three-year cycles which in turn reduces coal consumption and hence results in CO_2 emissions reduction. Saving in terms of energy is about 7.21 million tonnes of oil equivalent (MTOe), which is equivalent to emission reduction of about 27.51 million tonnes of CO2 from these TPPs.[49]

iv. GOI approved the scheme for promotion of Coal / Lignite Gasification Projects of Government PSUs and Private Sector with an outlay of USD 1 billion towards incentive for coal gasification projects.[50]

4. **ENERGY EFFICIENCY MEASURES –**

i. From FY 2021-22 to December 2023, Coal/Lignite PSUs have made commendable efforts towards energy efficiency, including the replacement of 4.24 lakh conventional lights with LED lights, 5357 energy-efficient air conditioners, 83,236 super fans, deployment of 201 electric vehicles, 1,583 efficient water heaters, 444 energy-efficient motors for pumps, 2,712 auto-timers in street lights and the installation of capacitor banks. The adoption of energy efficiency measures led to notable accomplishments, yielding a total energy savings of 14.34 crore kWh and financial savings amounting to INR 107.6 crore. Further, these endeavours played a vital role in promoting environmental sustainability, culminating in a collective reduction of 1.17 lakh tonnes of CO_2 equivalent in carbon emissions.[51]

ii. GOI has launched Voluntary Star Labelling Programme for multi-door refrigerators, table and wall-mounted fans, pedestal fans and induction

[49] PIB. 6 December 2023. https://pib.gov.in/PressReleasePage.aspx?PRID=1983097

[50] PIB. 24 January 2024.https://pib.gov.in/PressReleasePage.aspx?PRID=1999220

[51] PIB. 19 January 2024. https://pib.gov.in/PressReleasePage.aspx?PRID=1997860

hobs which is expected to save approximately 11.2 billion units of electricity by 2030 and will enable reduction of CO_2 emission close to 9 million tonne by 2030.[52]

iii. More than 368 million LED bulbs have been distributed under UJALA scheme, which has led to energy saving of more than 47 billion units of electricity per year and reduction of 38.7 million tonnes of CO_2 per year.

iv. India is one of the first countries to develop a comprehensive Cooling Action Plan which provides an integrated vision towards cooling across sectors encompassing, *inter alia*, reduction of cooling demand, refrigerant transition, enhancing energy efficiency and better technology options by 2037-38 through forging synergies with on-going programmes/ schemes of the Government.[53] This will help in reducing cooling energy requirements by 25-40% by 2037-38, thereby, emissions of low GHG related to cooling.[54]

5. **NON-FOSSIL FUEL-BASED ENERGY CAPACITY –**

i. India is progressively becoming a favoured destination for investment in renewables. During the period 2014 -2021, total investment in renewables stood at USD 78.1 billion in India.[55]

ii. About 103 GW of RE projects are under implementation with an estimated investment of about USD 48.2 billion. India will witness a more than 83% increase in investments in RE projects to about USD 16.5 billion in 2024.[56]

iii. India's likely total installed capacity by the end of 2029-30 is expected to be more than 800 GW, of which non-fossil fuel would contribute more than 500

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[52] PIB. 1 March 2023. https://pib.gov.in/Pressreleaseshare.aspx?PRID=1903522

[53] PIB. 14 March 2022. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1805795

[54] PIB. 08 March 2019. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1568328

[55] PIB. 31 January 2023. https://pib.gov.in/PressReleseDetailm.aspx?PRID=1894898

[56] The Hindu. *Renewable energy investments to surge 83% to $16.5 billion in 2024*; December 27, 2023; https://www.thehindu.com/business/renewable-energy-investments-to-surge-83-to-165-billion-in-2024/article67678871.ece

GW, resulting in the decline of average emission rate of around 29% by 2029-30, compared to 2014-15.[57]

iv. Globally, India stands 4th in terms of installed renewable energy capacity, 4th in terms of wind installed capacity and 4th in terms of solar installed capacity.[58]

v. As on 29th February 2024, India's non-fossil fuel based electric installed capacity stands at 190 GW, which is 44% of the total electric installed capacity.[59]

A. GREEN HYDROGEN-

India is implementing the National Green Hydrogen MissionThe target is to reach an annual production of 5 MMT by 2030. Nearly 50 MMT per annum of CO_2 emissions are expected to be averted through production and use of the targeted quantum of Green Hydrogen.[60] **The Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme**, is a major financial measure under the Mission with an outlay of USD 2.1 billion. The programme consists of two distinct financial incentive mechanisms to support domestic manufacturing of electrolysers and production of Green Hydrogen.[61]

B. SOLAR-

i. The *Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan* ("**PM-KUSUM**") scheme, which seeks to provide energy and water security, de-dieselize the farm sector and also generate additional income to farmers by producing solar power, has supported installation of 141.33 MW of small solar power capacity, 278,000 standalone and grid-connected agriculture

[57] PIB. 31 January 2023. https://pib.gov.in/PressReleseDetailm.aspx?PRID=1894898

[58] PIB. 3 January 2024. https://pib.gov.in/PressReleasePage.aspx?PRID=1992732

[59] Central Electricity Authority (CEA). Installed Capacity Report. https://cea.nic.in/wp-content/uploads/installed/2024/02/IC_Feb_2024allocation_wise.pdf

[60] PIB. 16 March 2023. https://pib.gov.in/PressReleasePage.aspx?PRID=1907705.

[61] PIB. 3 January 2024. https://pib.gov.in/PressReleasePage.aspx?PRID=1992732

pumps, and solarisation of 4594 grid connected agriculture pumps as on 30th November 2023.[62]

ii. PM Surya Ghar: Muft Bijli Yojana project was launched with an aim to light up 10 million households by providing up to 300 units of free electricity every month.[63]

iii. To facilitate domestic manufacturing, GOI has introduced the Production-Linked Incentive (PLI) Scheme in High Efficiency Solar PV Modules for Enhancing India's Manufacturing Capabilities and Enhancing Exports – Atmanirbhar Bharat. The national programme on 'high efficiency solar PV modules' is expected to build 65 GW of annual manufacturing capacity. Under Tranche-II with an outlay of USD 2.3 billion, Letters of Award have been issued in April, 2023 for setting up 39,600 MW of fully / partially integrated solar PV module manufacturing units.[64]

iv. The budget for 2023-24 has also allocated USD 543 million for the PLI scheme for large-scale electronics manufacturing. The scheme envisages incentives between 3% and 6% on incremental sales of goods manufactured in India.

v. GOI has allocated total capacity of 39,600 MW of domestic Solar PV module manufacturing capacity to 11 companies, with total outlay of USD 1.6 billion under PLI Scheme for High Efficiency Solar PV Modules (Tranche-II). Manufacturing capacity totalling 7,400 MW is expected to become operational by October 2024, 16,800 MW capacity by April 2025 and balance 15,400 MW capacity by April 2026.[65]

vi. Hon'ble PM dedicated to the nation, India's first Battery Storage and Solar Power based 'Suryagram' - "Modhera" in Gujarat on 9 October 2022.

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[62] PIB. Progress and Implementation of PM KUSUM Scheme, 23 December 2023. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1989815

[63] PIB. 13 February 2024. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2005596

[64] PIB. 3 January 2024. https://pib.gov.in/PressReleasePage.aspx?PRID=1992732

[65] PIB. 28 March 2023. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1911380

Imposition of Basic Customs Duty (BCD) on solar cells & modules has been done away.

vii. Phase II of the Rooftop Solar Programme timeline has been extended up to 31.03.2026. A national portal for simplifying the procedure on Rooftop Solar Programme has also been developed wherein any residential consumer from any part of the country can apply for rooftop solar without waiting for Discom to finalize tender and empanel vendors.[66]

viii. About 741 MW capacity has been installed under the grid connected rooftop solar programme during January to November 2023. An additional approximately 2.77 GW capacity has been installed in all sectors with or without Central Financial Assistance during this period.[67]

ix. The Government has notified wind solar hybrid policy, providing a framework for promotion of large grid connected wind-solar PV hybrid projects for optimal and efficient utilization of transmission infrastructure and land, reducing the variability in renewable power generation and achieving better grid stability.

x. 59 solar parks of aggregate capacity 40 GW have been approved in India. Solar Parks in Pavagada (2 GW), Kurnool (1 GW) and Bhadla-II (648 MW) included in top 5 operational solar parks of 7 GW capacity in the country. As on 30.11.2023, 50 solar parks have been approved with an aggregate capacity of around 37,490 MW in 12 States across the country.[68]

xi. The world's largest renewable energy park of 30 GW capacity solar-wind hybrid project is under installation in Gujarat. To promote large grid-connected wind-solar PV hybrid systems for efficient utilization of transmission infrastructure and land, addressing the intermittency challenge of renewable power sources.

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[66] PIB. 20 December 2022. https://pib.gov.in/PressReleasePage.aspx?PRID=1885147

[67] PIB. 3 January 2024. https://pib.gov.in/PressReleasePage.aspx?PRID=1992732

[68] PIB. 3 January 2024. https://pib.gov.in/PressReleasePage.aspx?PRID=1992732

C. WIND-

i. Wind Energy has an off-shore target of 30 GW by 2030 with 3 potential sites identified. Initial assessment of offshore wind energy potential within the identified zones has been estimated to be about 70 GW off the coast of Gujarat and Tamil Nadu.

ii. A revised Strategy for development of offshore wind energy projects has been issued in September, 2023, indicating a bidding trajectory for installation of 37 GW capacity of Off-shore Wind Energy. Further, Central Transmission Utility has completed the planning of required transmission infrastructure for offshore wind projects for initial 10 GW offshore capacity (5 GW each off Gujarat and Tamil Nadu coasts).[69] Govt. of Gujarat and Govt. of Tamil Nadu have agreed for power offtake @ Rs. 4.00 per unit from initial offshore wind energy projects from their respective coasts.[70]

iii. The Cabinet has approved Intra-State Transmission System – Green Energy Corridor Phase II with a total estimated cost of USD 1.4 billion.[71]

6. **INDUSTRY:**

i. Government of India has notified Carbon Credit Trading Scheme 2023 on 28th June 2023.[72]

ii. Perform Achieve and Trade (PAT) scheme, targeting carbon emission reduction in 13 energy intensive sector, including more than 1000 Designated Consumers, has led to energy savings of ~24 MTOE which is equivalent to emission reduction of 106 $MTCO_2$.[73]

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[69] PIB. 3 January 2024. https://pib.gov.in/PressReleasePage.aspx?PRID=1992732

[70] PIB. 3 January 2024. https://pib.gov.in/PressReleasePage.aspx?PRID=1992732

[71] Press Information Bureau. 06 January 2022. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1788011

[72] Carbon Credit Trading Scheme 2023 Notification – Ministry of Power, New Delhi. 28th June 2023.

[73] PIB. 1 March 2023. https://pib.gov.in/Pressreleaseshare.aspx?PRID=1903522

iii. To enhance the impact of PAT, a program namely DEEP (Demonstration of Energy Efficient Project) is being implemented.[74]

iv. Government of India has launched iDEEKSHA Portal as a one-stop shop for all energy efficiency and decarbonisation needs of Indian energy-intensive industries.

7. **FORESTRY AND BIODIVERSITY –**

i. Management Action Plans (MAP) for conservation and management of mangroves are formulated and implemented in 9 coastal States covering 38 identified mangrove sites.[75]

ii. As part of dedicated efforts to preserve ecosystems, India now has 75 Ramsar sites for wetlands covering the area of 13.3 lakh hectares.

iii. GOI is implementing several schemes for increasing forest and tree cover in the country, including mangroves in coastal areas, to prevent erosion. The scheme for 'Conservation and Management of Mangroves and Coral Reefs' is being implemented on a 60:40 fund sharing basis between the Centre and the States.

iv. Schemes such as Compensatory Afforestation Fund Management and Planning Authority (CAMPA), National Afforestation Programme etc., support afforestation activities across the country.

v. Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) is being taken up for mangrove plantation along the coastline and on salt pan lands, wherever feasible, through convergence between MGNREGS, CAMPA Fund and other sources. There is approximately 5000 sq. kms. of area under mangroves in India and through MISHTI an additional area of 540 sq. kms. is proposed to be covered across 9 States and 4 Union Territories. The scheme is planned to be implemented for a period of five years from 2023-2024 to 2027-2028. MISHTI envisages sharing of best practices on plantation

[74] PIB. 01 March 2023. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1903522

[75] PIB. 10 August 2023. https://pib.gov.in/PressReleasePage.aspx?PRID=1947426

techniques, conservation measures, management practices and resources mobilization through Public Private Partnership (PPP).

vi. India joined the Mangrove Alliance for Climate (MAC) which seeks to educate and spread worldwide awareness on the role of mangroves in curbing global warming and its potential as a solution for climate change. MAC is an initiative led by the United Arab Emirates (UAE) and Indonesia, and includes India, Sri Lanka, Australia, Japan, and Spain as partners. India as a partner, in line with its NDC goal to increase its carbon sink, will see collaborations with Sri Lanka, Indonesia and other countries to preserve and restore the mangrove forests in the region.

vii. India's total forest and tree cover, as reported in India's State of the Forest Report 2021, is 809,537 sq. km. which is 24.62% of the total geographical area of the country. This is an increase of 2,261 sq. km. (0.28%) compared to the previous assessment of 2019.

8. **PHASING DOWN HYDROFLUOROCARBONS (HFCS)-**

i. As per the Kigali Amendment, India will complete its phase down of HFCs in 4 steps from 2032 onwards with cumulative reduction of 85% of production and consumption of HFCs in 2047. India played a key role in finalization of the Kigali Amendment. After ratifying the same in September 2021, government is working towards developing a national strategy, in close consultation with industry stakeholders, for phasing down Hydrofluorocarbons (HFCs).[76]

ii. The Hydrofluorocarbons phasedown is expected to prevent emissions of up to 105 million tonne CO_2 eq, helping to avoid up to 0.5℃ of global temperature rise by 2100, while continuing to protect ozone layer.[77]

9. **SUSTAINABLE AGRICULTURE –**

Under the Bhartiya Prakritik Kheti Bio-Input Resource Centers, one crore farmers will be facilitated by the Central Government by 2026 to adopt natural farming.

[76] PIB. 16 September 2022. https://www.pib.gov.in/PressReleseDetailm.aspx?PRID=1859829

[77] PIB. 18 August 2021. https://pib.gov.in/PressReleasePage.aspx?PRID=1746946

For this, 10,000 Bio-Input Resource Centers will be set-up, creating a national-level distributed micro-fertilizer and pesticide manufacturing network.[78]

10. **SUSTAINABLE TRANSPORT –**

i. Government of India is promoting shift to use of public transport in urban areas, which will be completed by clean tech and governance solutions, special mobility zones with zero fossil-fuel policy and electric vehicles. GOI has plan to promote coastal shipping as the energy efficient and lower cost mode of transport, both for passengers and freight, through PPP mode with viability gap funding.

ii. India is implementing the Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India Scheme (FAME) to support the electric vehicle market development and its manufacturing eco-system to achieve self-sustenance.

iii. In Phase I of FAME, 0.28 million hybrid and electric vehicles are supported by way of demand incentive amounting to about USD 433 million. Phase-II of FAME India Scheme, for a period of 3 years, began in April 2019 with total budgetary support of USD 1.2 million. Under Phase-II of FAME India Scheme, subsidy amounting to USD 696 million has been given to EV manufacturers on sale of 13,41,459 number of electric vehicles.[79] 2,877 EV charging stations have been sanctioned in 68 cities across 25 States / UTs. Out of these charging stations, 148 EV charging stations are constructed and operational. 6,862 electric buses have been sanctioned to various cities/STUs/State Govt. entities for intra-city operations. Out of 6,862 e-buses, 3487 e-buses have been supplied to STUs.[80]

iv. Considering the constraint of space in urban areas for setting up charging stations, India is bringing out battery swapping policy.[81]

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[78] PIB. 1 February 2023. https://pib.gov.in/PressReleseDetail.aspx?PRID=1895291

[79] PIB. 2 February 2024. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2001991

[80] PIB. 2 February 2024. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2001991

[81] PIB. 21 April 2022. https://pib.gov.in/PressReleasePage.aspx?PRID=1818569

v. India has leapfrogged from Bharat Stage-IV (BS-IV) to Bharat Stage-VI (BS-VI) emission norms by April 1, 2020 which was earlier to be adopted by 2024.

vi. In furtherance of the vehicle scrapping policy, adequate funds have been allotted for replacing old vehicles.

vii. As of October 2023, around 874 kilometers of metro rail is operational in 20 cities across the country.[82] Further, about 1058 km are under construction in 27 cities.[83] This is for enhancing the use of public transport.

viii. Indian Railways has set a target of becoming Net Zero Carbon Emitter by 2030, which will lead to a reduction of emissions by 60 million tonnes annually.[84] Indian Railways has taken a number of initiatives to reduce its carbon emissions which include use of energy efficient technologies like completely switching over to production of three phase electric locomotives with regenerative features, use of head on generation (HOG) technology, use of LED lights in buildings and coaches, star rated appliances and afforestation.

ix. As of February 2023, about 147 MW of solar plants (both on Rooftops and on land) and about 103 MW of Wind power plants have been commissioned. Further, about 2150 MW of renewable capacity has also been tied up.[85]

x. Under Smart Cities Mission, first-of-its-kind initiative – Climate Smart Cities Assessment Framework 2019 has been launched which intends to provide clear roadmap for cities and urban India towards combating climate change through adoption of both mitigation and adaptation measures. [86]

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[82] PIB. 27 October 2023. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1972052

[83] PIB. 22 May 2023. https://pib.gov.in/PressReleasePage.aspx?PRID=1926371

[84] National Statement by Prime Minister Shri Narendra Modi at COP 26 Summit in Glasgow. https://www.mea.gov.in/Speeches-Statements.htm?dtl/34466/National+Statement+by+Prime+Minister+Shri+Narendra+Modi+at+COP26+Summit+in+Glasgow

[85] PIB. 15 March 2023. https://www.pib.gov.in/PressReleasePage.aspx?PRID=1907230

[86] PIB. 11 September 2020. https://pib.gov.in/PressReleasePage.aspx?PRID=1653293

11. **DOMESTIC FUELS -**

i. India has been implementing Ethanol Blended with Petrol (EBP) Programme throughout the country wherein Oil Marketing Companies (OMCs) sell petrol blended with ethanol. Under EBP Programme, Government has fixed the target of 20% blending of ethanol with petrol by 2025.[87] E-20 Notification directing OMCs to sell ethanol blended petrol with percentage of ethanol up to 20% from 1st April 2023 and BIS Specifications for higher ethanol blends E12 & E15 were issued.[88]

ii. ETHANOL100, a revolutionary automotive fuel has been launched, and reflects India's commitment to reducing import dependency, conserving foreign exchange, and boosting the agriculture sector.[89] ETHANOL 100 can be used in a wide array of vehicles, including flex-fuel vehicles (FFVs) designed to run on gasoline, ethanol, or any blend of the two, showcasing its practicality and potential to become a mainstream fuel option with the right infrastructure in place. E20 (20% ethanol blended fuel) was launched in 2023, and its availability has increased in under a year. With the launch of ETHANOL100 the target of 20% ethanol blending will be achieved by 2025-26.

iii. To make Liquified Petroleum Gas (LPG), a clean cooking fuel, available to the rural and deprived poor households, Government launched **Pradhan Mantri Ujjwala Yojana (PMUY)** in May 2016, to provide deposit free LPG connections to adult women of poor households. India imports about 60% of it's LPG requirement. To shield PMUY beneficiaries from the impact of sharp fluctuations in international prices of LPG and to make LPG more affordable to PMUY consumers. Targeted subsidy of Rs. 300 per 14.2 kg cylinder (and proportionately pro-rated for 5 kg cylinder) for up to 12 refills per year will be continued for beneficiaries of PMUY during FY 2024-25. There are more than 10.27 crore PMUY beneficiaries.[90]

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[87] PIB. 20 December 2023. https://pib.gov.in/PressReleasePage.aspx?PRID=1988727

[88] PIB. 5 June 2021. https://pib.gov.in/PressReleseDetail.aspx?PRID=1724642

[89] PIB. 15 March 2024. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2015031

[90] PIB. 7 March 2024. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2012354

iv. Government of India has released E-20 Notification directing Oil Companies to sell ethanol blended petrol with percentage of ethanol up to 20% from 1st April 2023; and BIS Specifications for higher ethanol blends E12 & E15.[91] The Government of India has resolved to meet the target of 20% ethanol blending in petrol by 2025, which was earlier to be achieved by 2030. Ethanol blending in India has increased from 1.5% in 2014 to 8.5% at present.

v. Pradhan Mantri Ujjwala Yojana, to provide rural households with clean cooking fuel, has benefitted 80 million households with LPG connections. Almost USD 1.1 billion has been allocated toward implementation of the scheme. The scheme has been extended to 10 million more beneficiaries. As on 29 November 2023, over 98 million LPG connections have been released, including over 18 million connections under UJJWALA 2.0.[92]

12. **SUSTAINABLE HABITAT –**

i. Swachh Bharat Mission Urban 2.0 is being implemented with a total financial allocation of USD 17.1 billion over a period of 5 years from 2021-2026.

ii. GOI has announced financial support for mass transit projects and AMRUT scheme for formulation of action plans and their implementation for facilitating Transfer Oriented Development and Town Planning Schemes by States.

13. **CIRCULAR ECONOMY AND RESOURCE EFFICIENCY-**

i. India has prepared action plans for circular economy in ten sectors including electronic waste, end-of-life vehicles, used oil waste and toxic & hazardous industrial waste. Focus is now being laid on addressing important cross cutting issues of infrastructure, reverse logistics, technology upgradation and integration with informal sector.

ii. GOI launched a major futuristic PPP (Public Private Participation) mode initiative for clean energy - “Mission Integrated Bio-refineries” centered on

[91] PIB. 5 June 2021. https://pib.gov.in/PressReleseDetail.aspx?PRID=1724642

[92] Source: https://pmuy.gov.in/

technology advancement and cooperation, zero waste bio-refinery for cost effective production of sustainable bio-fuels with co-production of bio-based chemicals and materials, using bio-technological interventions.[93]

iii. 500 new 'waste to wealth' plants under GOBARdhan (Galvanizing Organic Bio-Agro Resources Dhan) scheme will be established for promoting circular economy. These will include 200 compressed biogas (CBG) plants, including 75 plants in urban areas, and 300 community or cluster-based plants.

iv. 105 MWeq capacity of Bioenergy Projects (Biomass and Waste to Energy projects) was installed during 2023.

v. 12,693 small Biogas Plants & 1.107 Mweq (medium size biogas plants) were installed.

vi. As part of the United Nations Decade of Action for attainment of SDGs, India has initiated several measures for promoting Resource Efficiency and Circular Economy, including for prevention and management of waste. MoEFCC has notified Circular Economy Action Plan for Tyre and Rubber and has notified on 16.02.2022 'Guidelines on the Extended Producer Responsibility (EPR) for Plastic Packaging' under Plastic Waste Management Rules, 2016.

14. CARBON CAPTURE, UTILIZATION AND STORAGE (CCUS)

National Centres of Excellence in Carbon Capture and Utilisation has been established at Indian Institute of Technology (IIT) Bombay, Mumbai with support from Department of Science and Technology (DST), GOI.[94]

III. INTERNATIONAL COALITIONS STEERED BY INDIA

Beyond its domestic climate actions, India has also pioneered, together with partner countries, some important global initiatives.

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[93] PIB. 4th April 2022. https://pib.gov.in/PressReleasePage.aspx?PRID=1813329

[94] Department of Science and Technology. 7 March 2024. https://dst.gov.in/newly-developed-resilient-cost-effective-carbon-capture-technology-represents-significant

1. ***International Solar Alliance (ISA)***, launched in 2015, is Prime Minister's vision to bring clean and affordable energy within reach of all, and enhance international collaboration with countries having solar potential. So far, 118 countries have signed the Framework Agreement of ISA with 97 of them ratifying it. As on 01.12.2023, Government of India has contributed USD 33 million to ISA towards its corpus fund, and budgeted expenses.[95]

2. On the side-lines of COP26, Hon'ble PM of India launched "Green Grids Initiative - ***One Sun, One World, One Grid***" for availability of clean energy from a world-wide grid everywhere at all times and reducing the need for storage and increase in viability of solar projects. The initiative is to reduce carbon footprint and cost of energy, and open a new avenue of cooperation between different regions and countries.[96]

3. **Coalition for Disaster Resilient Infrastructure (CDRI)** was launched at the 2019 Climate Summit by Hon'ble Prime Minister. This international initiative seeks to make infrastructure disaster resilient. Total 31 countries, EU and 7 multilateral organisations have already joined the CDRI. It is working to garner attention towards Infrastructure damage during natural disasters, which specially impacts the poorer nations.

4. On the sidelines of COP 26, Hon'ble PM of India launched '***Infrastructure for Resilient Island States' (IRIS)*** under Coalition for Disaster Resilient Infrastructure (CDRI) for easy and faster mobilization of technology, finance and necessary information for Small Island Developing States (SIDS). The initiative promotes quality infrastructure in SIDS and will benefit both lives and livelihoods.[97]

5. ***Global Green Credit Initiative*** was co-launched at a high-level event co-hosted by India and UAE on 1st December, 2023. The Initiative promotes global cooperation and collaboration through exchange of knowledge,

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[95] International Solar Alliance. https://isolaralliance.org/membership/signatory and https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1983203

[96] PIB. 02.11.2021. https://pib.gov.in/PressReleasePage.aspx?PRID=1769062

[97] PIB. 02.11.2021. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1769002

experiences and best practices in policy, planning, implementation and monitoring of environment-positive actions through various initiatives like Green Credits.[98]

6. India, in partnership with Sweden, launched the Phase-II of the ***Leadership Group for Industry Transition*** (LeadIT 2.0) for the period 2024-26 at COP-28 in December, 2023[99]. The **LeadIT initiative** supports NDC implementation with focus on hard to abate industrial sectors. The India-Sweden Industry Transition Platform was also launched to connect the governments, industries, technology providers, researchers, and think-tanks. Three main focus areas of the initiative are: inclusive and just industry transition ; co-development and transfer of low carbon technology; and financial support for industry transition in emerging economies.

7. Hon'ble PM of India, along with the leaders of some countries, launched the ***Global Biofuel Alliance (GBA)*** on 9 September 2023, on the sidelines of G20 Summit in New Delhi. GBA intends to expedite the global uptake of biofuels through facilitating technology advancements, intensifying utilization of sustainable biofuels, shaping robust standard setting and certification through the participation of a wide spectrum of stakeholders.

8. India's ***'Lifestyle for the Environment (LiFE) Movement,'*** which is a pro-people and pro-planet effort, seeking to shift the world from mindless and wasteful consumption to mindful and deliberate utilization of natural resources. The overarching cover decision of COP-27, titled the *Sharm el-Sheikh Implementation Plan*, noted the 'importance of transition to sustainable lifestyles and sustainable patterns of consumption and production for efforts to address climate change'. It also notes the *'importance of pursuing an approach to education that promotes a shift in lifestyles while fostering patterns of development and sustainability based on care, community and cooperation.'* The *outcome of the First Global Stocktake* also *noted the importance of transitioning to sustainable lifestyles and sustainable patterns of consumption and production in efforts to address climate change,*

[98] PIB. 1 December 2023. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1981719

[99] PIB. 1 December 2023. https://pib.gov.in/PressReleasePage.aspx?PRID=1981722

including through circular economy approaches, and encourages efforts in this regard[100]. A historic resolution on Promoting Sustainable Lifestyles, submitted by India was adopted by all participating Member States at United Nations Environment Assembly at its Sixth Session (UNEA-6)[101].

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H.E. Mrs. Reenat Sandhu
Ambassador of India to the Kingdom of the Netherlands

The Hague, 21 March 2024

[100] Decision -/CMA.5, Outcome of the first global stocktake, https://unfccc.int/sites/default/files/resource/cma5_auv_4_gst.pdf

[101] PIB. 1 March 2024. https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2010786