INTERNATIONAL COURT OF JUSTICE

OBLIGATIONS OF STATES IN RESPECT OF CLIMATE CHANGE

(REQUEST FOR ADVISORY OPINION)

WRITTEN STATEMENT OF THE ISLAMIC REPUBLIC OF PAKISTAN

22 MARCH 2024

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1. The Islamic Republic of Pakistan ("Pakistan") welcomes the General Assembly's request for an advisory opinion.

2. In this Written Statement, Pakistan focusses on the question of the relevant legal obligations of States with respect to climate change. Pakistan reserves the right to comment on the question of legal consequences at a subsequent stage of these proceedings.

3. This Written Statement is structured as follows:

   (a) Part I explains that climate change has already had and is continuing to have serious adverse impacts on Pakistan and its population.

   (b) Part II outlines what Pakistan considers to be the most relevant international legal obligations of States.

   (c) Part III contains a brief conclusion.

I. THE SEVERE ADVERSE IMPACTS OF CLIMATE CHANGE ON PAKISTAN AND ITS POPULATION

4. Global warming resulting from greenhouse gas emissions is, on the current trajectory, a death sentence for the world.[1] The best available science is clear that: "Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 in 2011–2020".[2] In its Sixth Assessment Report (2023),[3] the Intergovernmental Panel on Climate Change ("IPCC"):

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1 "Current climate policies 'a death sentence' sentence for the world, warns Guterres", UN News, 20 April 2023.

2 IPCC, *Synthesis Report of the IPCC: Sixth Assessment Report, Summary for Policymakers* (2023), 28, para D.1.1.

3 IPCC, *Synthesis Report of the IPCC: Sixth Assessment Report, Summary for Policymakers* (2023), statement A.1.

(a) reaffirmed "with *high confidence* the AR5 [Fifth Assessment Report] finding that there is a non-linear relationship between cumulative anthropogenic CO_2 emissions and the global warming they cause"; and

(b) reiterated that "[e]very tonne of CO_2 emissions adds to global warming" and found that "[e]ach 1000 $GtCO_2$ of cumulative CO_2 emissions is assessed to likely cause a 0.27°C to 0.63°C increase in global surface temperature with a best estimate of 0.45°C".

5. Countries across the globe have already witnessed increasing extreme climate and weather patterns, causing serious harmful changes to the climate system and other parts of the environment and to people.[4] The best available science is also clear that:

(a) with every additional increment of global warming, the adverse impacts will worsen;[5]

(b) there is "high confidence" that "[l]imiting global warming requires limiting the total cumulative global anthropogenic emissions of CO_2 since the pre-industrial period, that is, staying within a total carbon budget";[6] and,

(c) unless greenhouse gas emissions are limited to below 1.5°C above pre-industrial levels target, critical and irreversible thresholds will most likely be crossed, tipping the climate system into uncharted catastrophic territory.[7]

6. The World Bank has recognized that:

> "Pakistan ranks as among the 10 countries worldwide most affected by climate change and natural disasters. The country faces further warming of its already hot climate at a rate considerably above the global average. ... There is a significant probability of ever more climatic variability and extreme events. Progressive warming of the air and soil will result in the reduced availability of

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4 IPCC, *Synthesis Report of the IPCC, Sixth Report, Summary for Policymakers* (2023), statement A.2.

5 IPCC, *Synthesis Report of the IPCC, Sixth Assessment Report, Summary for Policymakers* (2023), statement B.1.3.

6 IPCC, *Special Report, Global Warming of 1.5°C, Summary for Policy Makers*, para. C.1.3.

7 W. Steffen and others, "Trajectories of the Earth System in the Anthropocene" (2018), vol. 14, Proceedings of the National Academy of Sciences of the United States of America, p. 8254. See *ibid.* p. 8252: "If the threshold is crossed, the resulting trajectory would likely cause serious disruptions to ecosystems, society, and economies".

water. Periodic heatwaves will intensify these effects and contribute to more severe, more frequent, and longer droughts. Climate change and deposits of anthropogenic black carbon (BC) will hasten the melting of the Himalaya, Hindu Kush, and Karakorum (HKHK) glaciers, leading to changes in the flow of the vital Indus River system and seriously affecting Pakistan's economy and ecology. A more variable monsoon regime, and likely more intense storm and cyclone events, will result in floods and induce landslides. Continued and accelerating sea-level rise will cause the ocean to encroach on coastal settlements and infrastructure and commit low-lying coastal ecosystems to submergence and loss".[8]

7. To adopt the World Bank's terminology, climate change is a "risk multiplier" for Pakistan,[9] compounding its human and economic development challenges. Damage to agricultural productivity, soil, forests, public and private infrastructure, livelihoods, human health, and economic stability has resulted in irreversible impacts, including massive internal displacements, hunger, poverty as well as severe losses in its gross domestic product.[10] The World Bank estimates that, unless addressed, Pakistan's GDP could decline by 18–20% as a result of the combined risks from the intensification of climate change and land degradation.[11]

8. As explained in greater detail below, Pakistan's extreme vulnerability to climate change is particularly evident from its recent devastating experience of severe flooding and temperature extremes. As Justice Syed Mansoor Ali Shah, then Chief Justice of Lahore, observed in the landmark case of *Asghar Leghari* v. *Federation of Pakistan* in 2018: "Climate change is a defining challenge of our time and has led to dramatic alterations of our planet's climate system. For Pakistan, these climatic variations have primarily resulted in heavy floods and droughts, raising serious concerns regarding water and food security".[12]

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8 World Bank Group, "Pakistan Country Climate and Development Report" (2022), p. 4 (underlined here); see also D. Eckstein, V. Künzel, and L. Schäfer, "Global Climate Risk Index 2021", German watch Briefing Paper, available at: https://www. germanwatch.org/en/19777.

9 World Bank Group, "Pakistan Country Climate and Development Report" (2022), p. 4.

10 Ministry of Planning Development & Special Initiatives, Resilient Recovery, Rehabilitation and Reconstruction Framework, December 2022, p. 106

11 World Bank Group, "Pakistan Country Climate and Development Report" (2022), p. 17.

12 *Asghar Leghari* v. *Federation of Pakistan*, P. L. D 2018 Lahore 364, para. 11 (Syed Mansoor Ali Shah, C. J.). See also *Raja Zahoor Ahmed* v. *Capital Development Authority*, 2022 S.C.M.R. 1411 (Syed Mansoor Ali Shah & Amin-ud-Din Khan, J.J.); *D. G. Khan Cement Company Ltd.* v. *Government of Punjab*, 2021 S.C.M.R. 834 (Mansoor Ahmad Malik & Syed Mansoor Ali Shah, J.J.); *Province of Sindh* v. *Sartaj Hyder*, 2023 S.C.M.R. 459 (Umer Ata Bandial, C.J.; Syed Mansoor Ali Shah & Ayesha A. Malik, J.J.).

(a) In 2022, flooding severely affected a third of the country and impacted 33 million people.[13] Entire villages were submerged, millions of homes were destroyed and a very great deal of infrastructure was damaged.[14] This was not a one-off event. Earlier, in 2010, flooding affecting 20 million people resulted in around 2,000 deaths, around 6 million people in need of shelter,[15] and a total loss of around USD 10 billion.[16]

(b) Pakistan has also been suffering from an increase in extreme temperatures, and the attendant problems of droughts and desertification. By way of example, in 2015 a heatwave resulted in the loss of 1200 lives.[17] The IPCC has concluded (with medium confidence) that, at 2°C of warming, Karachi, on the coast of the Arabian Sea in the southeast of Pakistan, could on an annual basis experience conditions equivalent to its deadly 2015 heatwave.[18]

(c) These climatic variations have also been occurring in tandem. The 2022 floods came on the heels of a severe heatwave, previously a 1-in-1,000-year event, and a drought emergency, during which the highest recorded temperature stood at 45.5°C.[19]

9. More generally, Pakistan has experienced an increase in the frequency and intensity of extreme climate-change related weather events. The adverse impacts of climate change on Pakistan's ecosystems, people, settlements, and infrastructure across the country include the following:[20]

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13 National Statement by the Prime Minister of Pakistan, World Leaders' Summit of the United Nations Climate Change Conference — COP27, 7–8 November 2022, Sharm El-Sheikh.

14 Ministry of Planning Development & Special Initiatives, Pakistan Floods 2022: Post Disaster Needs Assessment, October 2022, pp. 4 and 11.

15 IPCC, *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (2012), p. 457.

16 IPCC, *Climate Change 2014: Impacts, Adaptation and Vulnerability — Part B: Regional Aspects*, Table 18-3.

17 Government of Pakistan Ministry of Climate Change, *Technical Report on Karachi Heat Wave June 2015* (2015), p. iii, available at https://ghhin.org/wp-content/uploads/heatwave.pdf.

18 IPCC, *Global Warming of 1.5 Degrees Celsius* (2019), p. 263.

19 Pakistan Meteorological Department, Pakistan's Monthly Climate Summary: August (2022).

20 Ministry of Planning Development & Special Initiatives, Pakistan Floods 2022: Post Disaster Needs Assessment, October 2022, p. 31.

(a) Extreme weather events — such as floods and droughts — have significantly affected the lives and livelihoods of millions of people, including cash crop-focussed rural villages;

(b) Aridity has increased in most parts of the country,[21] such that desertification is already a serious problem;[22]

(c) The coastal belts of Balochistan and Sindh are experiencing an increased frequency and severity of tropical storms, coastal rains, and seawater intrusion;[23] and,

(d) There has also been a shift in the overall monsoon pattern in the country. Changing patterns in the summer monsoons, winter rain and snowfall are occurring as new areas (including Khyber Pakhtunkhwa, South Eastern Punjab, and Central Sindh) become vulnerable to devastating floods.[24]

10. Pakistan's adaptation and mitigation efforts to curb the impacts of climate change have been extensively documented.[25] Despite barriers in technology transfer and climate financing mechanisms, its Government has sought to enhance adaptation efforts and contribute towards global mitigation efforts.[26] Key measures include:

a. Updated Nationally Determined Contributions ("NDC"): Pakistan has revised and presented an improved NDC, pledging to cut greenhouse gas emissions by

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21 IPCC, *Climate Change 2021 — The Physical Science Basis*, p. 1800.

22 IPCC, *Special Report on Climate Change and Land* (2022), p. 264.

23 Ministry of Planning Development & Special Initiatives, Pakistan Floods 2022: Post Disaster Needs Assessment, October 2022, p. 17.

24 Office of the Chief Engineering Advisor and Federal Flood Commission, 2022 Annual Report (2023), p. 33.

25 See generally Ministry of Climate Change and Environmental Coordination, National Adaptation Plan — Pakistan 2023; World Bank Group, Country Climate and Development Report — Pakistan November 2022; Government of Pakistan, Updated Nationally Determined Contributions 2021; World Bank Group and Asian Development Bank, Climate Risk Country Profile — Pakistan 2021; Ministry of Climate Change and Environmental Coordination, Pakistan's Second National Communication on Climate Change to United Nations Framework Convention on Climate Change 2018; Ministry of Climate Change and Environmental Coordination, National Climate Change Policy October 2021; Asian Development Bank, Climate Change Profile of Pakistan 2017; World Bank Group and Asian Development Bank, Climate Risk Country Profile — Pakistan 2021. See also paras. 65–68 below.

26 Government of Pakistan, Updated Nationally Determined Contributions 2021, p. 26.

50% from the business-as-usual[27] scenario by 2030.[28] Of this commitment, 15% of the emission reductions are guaranteed unconditionally; the remaining 35% depend on external international assistance and funding.[29] This updated target marks a significant step up in ambition, notably introducing an unconditional reduction goal for the first time.[30] According to the World Bank, "Pakistan's updated 2021 NDC represents a paradigm shift toward an inclusive, innovative, whole-of-economy approach to tackling climate change challenges through targeted adaptation and mitigation actions."[31] The high-priority actions[32] include:

i. the Recharge Pakistan Programme (reducing flood risk and enhancing water recharge at six sites in the Indus Basin, building the resilience of 10 million people, and strengthening vulnerable ecosystems);

ii. expanding renewable energy (including the Alternative Renewable Energy Policy, which aims to create an environment and framework for the sustainable growth of Pakistan's alternative renewable energy sector);

iii. greening transportation (including the National Electric Vehicles Policy 2020–2025, imposing a target of 30% and 90% share in the sale of passenger vehicles and heavy-duty trucks by 2030 and 2040);

iv. reducing dependence on coal (a ban on imported coal, the shelving of plans for two new coal-fired power plants in favour of hydro-electric

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27 IPCC, *Global Warming of 1.5 Degrees Celsius* (2019), Annex I, Glossary, p. 543 (Defines baseline scenario — synonymous with business-as-usual scenarios — as "scenarios that are based on the assumption that no mitigation policies or measures will be implemented beyond those that are already in force and/or are legislated or planned to be adopted. Baseline scenarios are not intended to be predictions of the future, but rather counterfactual constructions that can serve to highlight the level of emissions that would occur without further policy effort".).

28 Government of Pakistan, Updated Nationally Determined Contributions 2021, p. 14.

29 *Ibidem.*

30 See Government of Pakistan, First Nationally Determined Contributions 2016, p. 28, committing to a reduction of up to 20% in its projected greenhouse gas emissions for 2030, conditional on external international assistance and funding.

31 World Bank Group, Country Climate and Development Report — Pakistan (November 2022), p. 20.

32 *Ibidem.*

power, and a focus on coal gasification and liquefaction for indigenous coal. Buying out new coal power projects, however, would require an estimated cost of USD 18 billion. An additional estimated USD 13 billion will be required to replace the production of the coal power plants with renewable energy); and,

v. The NDC also commits the government to continue investments in nature-based solutions such as the Upscaling of Green Pakistan Programme ("UGPP"), a project seeking to quadruple the benefits of natural capital restoration, carbon sequestration, and livelihood improvements, especially for poor households.

b. Formulation of the National Adaptation Plan ("NAP"):[33] The objectives of the process to formulate and implement NAPs are to:

i. reduce vulnerability to the impacts of climate change by building adaptive capacity and resilience; and,

ii. facilitate the integration of climate change adaptation, into relevant new and existing policies, programmes and activities, in particular development planning processes and strategies, within all relevant sectors and at different levels, as appropriate. The NAP highlights Pakistan's commitment to tackling challenges related to climate change, notably following the floods in 2022 and the regular occurrence of heatwaves within the country.

c. Nature-based Solutions: Pakistan has taken several steps in this respect:

i. National Forest Policy, 2017 (aiming to expand, protect and promote sustainable use of national forests, protected areas, natural habitats and watersheds for restoring ecological functions, improving livelihoods

33 Government of Pakistan, National Adaptation Plan 2023.

and human health in line with the national priorities and international agreements);[34]

ii. Ecosystem Restoration Initiative, 2019 (aiming to facilitate a transition towards environmentally resilient Pakistan by mainstreaming adaptation and mitigation through ecologically targeted initiatives. This initiative also established an independent, transparent and comprehensive financial mechanism in Pakistan called the "Ecosystem Restoration Fund" to finance the projects and programmes under the initiative. This fund will facilitate Pakistan's transition towards climate-compatible development. The fund's present initiatives include afforestation, biodiversity conservation, marine conservation, promotion of eco-tourism and electric vehicles);[35]

iii. Protected Areas Initiative (increasing the number of national parks from 30 to 45 and projects to enhance the total protected land area from 12 percent to 15 percent by 2023);[36]

iv. Blue Carbon Project, 2020 (aiming to make an accurate estimation of the potential carbon stock of Pakistan's coastal ecosystem and mangroves);[37]

v. Living Indus Initiative,[38] an umbrella initiative focussing on nature-based solutions and ecosystem-based adaptation approaches to protect, conserve, and restore natural, terrestrial, freshwater, coastal and marine ecosystems in the Indus Basin. The basin-wide initiative has hitherto restored 1,350,000 hectares and seeks to restore 25 million hectares of the river basin by 2030 (encompassing more than 30

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34 Ministry of Climate Change and Environmental Coordination, National Climate Change Policy October 2021, p. 11.

35 *Ibid.*, p. 15.

36 *Ibid.*, p. 15.

37 *Ibid.*, p. 20.

38 United Nations Pakistan, Living Indus, available at https://www.pakistan.un.org/en/197982-living-indus.

percent of Pakistan's area). It encompasses 25 projects, and is estimated to cost up to USD 17 billion.[39]

d. Institutional mechanisms and actions at the federal level: The focal institution responsible for leading and coordinating these initiatives is the Ministry of Climate Change and Environmental Coordination. The Ministry is responsible for the following:

   i. Climate change policies (develop climate change adaptation and mitigation policies, legislation, implementation strategies, plans and projects);

   ii. Means of implementation for climate change policies (mobilize resources for achieving the objectives of the climate change policies, including liaison with international financial mechanisms);

   iii. Coordination (coordinate with federal and provincial entities for policy integration);

   iv. International cooperation (bilateral/multilateral collaboration with foreign governments and intergovernmental organizations on climate-related initiatives);

   v. Climate change negotiations (participation in international climate change negotiations); and,

   vi. National communications and reporting (matters related to climate data, inventories, reporting obligations under conventions, technology transfer and national adaptation plans).

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39 United Nations Decade on Ecosystem Restoration, Initiative to Restore More Than 30 Per Cent of Pakistan's Indus River Basin by 2030 Named One of Seven UN World Restoration Flagships, available at https://www.decadeonrestoration.org/initiative-restore-more-30-cent-pakistans-indus-river-basin-2030-named-one-seven-un-world.

Considering the need for capacity building and institutional strengthening, the Pakistan Climate Change Act 2017 was promulgated. It envisages the establishment of:

i. cross-ministerial Pakistan Climate Change Council (responsible for the country's overall climate strategy);[40]

ii. the Pakistan Climate Change Authority (tasked with coordinating climate policy development and implementation, in addition to designing and establishing a national registry and database on greenhouse gas emissions);[41] and

iii. the Pakistan Climate Change Fund (aimed at mobilizing resources from both domestic and international sources to provide finances to support mitigation and adaptation initiatives in the country).[42]

e. Institutional mechanisms and actions at the provincial level: The efforts undertaken by the federal government have been complemented at the provincial level through:[43]

i. Establishment of Directorates of Climate Change and Multilateral Environment Agreements;

ii. Formulation of climate change policies and frameworks for their implementation;

iii. Constitution of Climate Change Policy Implementation Committees;

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40 Pakistan Climate Change Act, 2017, section 3.
41 Pakistan Climate Change Act, 2017, section 5.
42 Pakistan Climate Change Act, 2017, section 12.
43 Ministry of Climate Change and Environmental Coordination, Pakistan's Second National Communication on Climate Change to United Nations Framework Convention on Climate Change 2018, p. 83.

iv. Construction of 1,000 MW Quaid-e-Azam solar park in the province of Punjab;

v. Improvement of urban public transport systems, especially Bus Rapid Transport at Lahore, Rawalpindi, Islamabad and Multan as well as the construction of an urban rail transport (Orange Line) in Lahore; and,

vi. Conservation of national parks and protected areas.

11. Before turning to the issues of flooding and temperature extremes in greater detail, it is necessary to place the severity of the impacts felt by Pakistan in context. Pakistan itself contributes less than 1% of global greenhouse gas emissions.[44] Pakistan is therefore a paradigm example of the tragic irony recognized by the IPCC that the "[v]ulnerable communities who have historically contributed the least to current climate change are disproportionately affected" by its adverse impacts.[45]

(a) Flooding

12. Pakistan has struggled with the issue of flooding since it gained independence in 1947. As a result of climate change, however, the frequency and intensity of the problem has increased significantly. Flooding is now a recurring problem, which regularly wreaks devastation on Pakistan's people and the economy. The problem is multifaceted: it includes riverine floods (caused by floods in the Indus or its tributaries), hill torrent floods (generated by heavy run-off in the western mountain ranges), and rain floods (caused by excessive local rainfall).[46]

13. In addition to the immediate large-scale human cost, each flood disaster is also estimated to have the potential to set back Pakistan's development by five to ten years.[47]

14. With the increasing rate of climate change, and the rapid expansion of the population in cities and villages,[48] Pakistan becomes ever more vulnerable to the threat of further

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44 Ministry of Planning Development & Special Initiatives, Pakistan Floods 2022: Post Disaster Needs Assessment, October 2022, p. 4; World Bank Group, "Pakistan Country Climate and Development Report" (2022), p. 6, available at: https://openknowledge.worldbank.org/handle/10986/38277.

45 IPCC, *Synthesis Report of the IPCC, Sixth Report, Summary for Policymakers* (2023), statement A.2.

46 Dutch Disaster Risk Reduction, Improving Flood Resilience in Pakistan, 22 January 2023, p. 4.

47 Office of the Chief Engineering Advisor and Federal Flood Commission, 2022 Annual Report (2023), p. 36.

48 *Ibid.*, p. i; Pakistan Meteorological Department, Pakistan's Monthly Climate Summary: August (2022).

extreme flooding.[49] The 2010 and 2022 floods — the worst ever to hit the country — provide a reliable indication of what more is to come unless all States take the necessary measures to limit and control greenhouse gas emissions.

15. In July 2010, heavy monsoon rains in the Khyber Pakhtunkhwa, Lower Punjab, Sindh, and Balochistan regions — particularly in the catchment area of the Indus River — led to devastating floods.

    (a) With one-fifth of the country inundated, around 20 million people were affected. The floods resulted in a loss of almost 2000 lives and six million people displaced, as well as causing large-scale destruction of properties, infrastructure and arable land.

    (b) The floods resulted in direct economic losses of almost USD 10 billion.[50] Notably, this figure represents nearly half of the cumulative estimated damage, USD 19 billion, in the 64-year period between 1950 and 2014.[51]

    (c) The extent of damage also stood out as the total flooded area was less than the earlier floods of 1956, 1973, and 1976.

16. The 2022 floods provided a further tragic illustration of Pakistan's extreme vulnerability to the deleterious effects of climate change.

    (a) An unusually strong and long-lasting summer monsoon in the northern Arabian Sea carried large quantities of warm and humid air currents from the tropical Indian Ocean northward to Pakistan.[52] At the same time, owing to a change in the circulation system known as the "western Pacific subtropical high", water

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49 Dutch Disaster Risk Reduction, Improving Flood Resilience in Pakistan, 22 January 2023, p. 3.

50 The People's Republic of China and the Islamic Republic of Pakistan, Investigation and Advisory Report on 2022 Catastrophic Floods in Pakistan, Chinese Governmental Flood Control Expert Group (2022), p. 11; IPCC, *Climate Change 2014: Impacts, Adaptation and Vulnerability — Part B: Regional Aspects*, Table 18-3; IPCC, *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (2012), p. 457.

51 National Engineering Services of Pakistan and Deltares, National Flood Protection Plan-IV (2015), p. 1.

52 The People's Republic of China and the Islamic Republic of Pakistan, Investigation and Advisory Report on 2022 Catastrophic Floods in Pakistan, Chinese Governmental Flood Control Expert Group (2022), p. 14.

vapour in the eastern Bay of Bengal altered its traditional eastward path and turned to northern India and Pakistan.[53]

(b) As a result, compared to previous monsoon seasons, Pakistan experienced an approximate 200% increase in rainfall between June and August.[54] The unprecedented precipitation — the heaviest and most concentrated ever recorded in the country[55] — led to pluvial, torrential, riverine, and urban flooding; landslides; and accelerated glacial melting.

17. The intensity of the 2022 flooding is attributable to the impacts of climate change. Research has established that the five-day maximum rainfall — a measure of heavy precipitation — in the provinces of Sindh and Balochistan was around 75% more intense than it would have been had the climate not warmed by 1.2°C.[56]

18. The result was unprecedented devastation of people's lives, assets, and livelihoods, as well as public infrastructure. Government authorities declared 94 districts — more than half of all the districts in the country, including 19 of its 25 poorest districts — to have been "calamity hit".[57] According to estimates prepared in the months following the floods:

(a) around 33 million people — one in seven of the whole population — were affected. Nearly 8 million were displaced and more than 1,700 (one-third of whom were children) lost their lives;[58]

(b) around 780,000 homes were destroyed and more than 1.27 million houses were partially damaged;[59]

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53 *Ibid.*, pp. 14–15.

54 *Ibid.*, pp. 14–15.

55 Office of the Chief Engineering Advisor and Federal Flood Commission, 2022 Annual Report,(2023), p. i; Ministry of Planning Development & Special Initiatives, Pakistan Floods 2022: Post Disaster Needs Assessment, October 2022, p. 31.

56 World Weather Attribution, "Climate Change Likely Increased Extreme Monsoon Rainfall, Flooding Highly Vulnerable Communities in Pakistan" (2022), available at: https://www.worldweatherattribution.org/wp-content/uploads/Pakistan-floods-scientific-report.pdf.

57 Ministry of Planning Development & Special Initiatives, Pakistan Floods 2022: Post Disaster Needs Assessment (2022), p. 11.

58 National Disaster Management Authority (NDMA), NDMA Floods: Sitrep Report No. 128 (2022); Ministry of Planning Development & Special Initiatives, Pakistan Floods 2022: Post Disaster Needs Assessment (2022), p. 11.

59 Ministry of Planning Development & Special Initiatives, Pakistan Floods 2022: Post Disaster Needs Assessment (2022), p. 51.

(c) 13,115 km of roads and 439 bridges were damaged;[60] and,

(d) around 1 million livestock were killed.[61]

19. As to the longer-term social and economic damage:

(a) Preliminary estimates prepared after the floods suggested that, as a direct consequence of the floods, the national poverty rate would increase by 3.7–4.0 percentage points. This would push between 8.4 and 9.1 million people into poverty.[62]

(b) The floods had a particularly severe impact on the livelihoods of vulnerable groups — primarily women — including landless farmers, agricultural and livestock/dairy workers, and home-based workers in the agricultural and manufacturing sectors.[63]

(c) The floods also affected essential education services in all 94 calamity-hit districts; it impacted 17,205 public education institutions (public schools, colleges, special education centres, technical and vocational education and training centres, and universities), 94,478 educators, and 2.6 million enrolled students.[64]

(d) Early estimates suggested that at least 149 cultural and historic sites across the country were severely damaged. Buddhist stupas, Hindu temples, and tombs of pre and post-Islamic dynasties suffered extensive damage. Religious sites in active use, including mosques, shrines, and dargahs, were also extensively damaged.[65]

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60 The People's Republic of China and the Islamic Republic of Pakistan, Investigation and Advisory Report on 2022 Catastrophic Floods in Pakistan, Chinese Governmental Flood Control Expert Group (2022), pp. 16–17.

61 Ministry of Planning Development & Special Initiatives, Pakistan Floods 2022: Post Disaster Needs Assessment (2022), p. 17.

62 *Ibid.*, p. 11.

63 Ministry of Planning, Development & Special Initiatives, Pakistan Floods 2022: Post Disaster Needs Assessment (2022), pp. 65–66.

64 Ministry of Planning, Development & Special Initiatives, Resilient Recovery, Rehabilitation and Reconstruction Framework, December 2022, p. 92.

65 *Ibid.*, p. 82.

20. A Post Disaster Needs Assessment prepared in October 2022 by Pakistan's Ministry of Planning Development and Special Initiatives estimated that the total damage (i.e., the direct costs of destroyed or damaged physical assets) was around USD 14.9 billion and the total loss (i.e., changes in economic flows resulting from the disaster and valued in monetary terms) was around USD 15.2 billion.[66] The amount estimated as needed for the rehabilitation works was USD 16.3 billion.[67] The recovery and reconstruction needs significantly outweigh Pakistan's available resources.

21. If global warming exceeds the target of 1.5°C, flooding is expected to cause even greater damage in Pakistan. The IPCC projects that, in the absence of adaptation measures, global warming will, at a 2°C temperature rise, lead to an increase in direct flood damages by 1.4 to 2 times and, at 3°C rise, 2.5 to 3.9 times.[68]

(b) Extreme temperatures and desertification

22. A further severe impact of climate change affecting Pakistan is rising and extreme temperatures, resulting in increasing desertification. The IPCC has found that:

    (a) the annual average of daily maximum and minimum temperatures has increased over almost all of Pakistan, with a faster increasing trend in the south (high confidence);[69] and

    (b) minimum temperatures have increased faster (0.17°C–0.37°C per decade) than maximum temperatures (0.17°C–0.29°C per decade).[70]

23. Temperature increases have contributed to reduced yields of wheat in arid, semi-arid and dry sub-humid zones of Pakistan. Agricultural production in the drylands of South

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66 Ministry of Planning, Development & Special Initiatives, Pakistan Floods 2022: Post Disaster Needs Assessment, October 2022, pp. 14–15.

67 *Ibid.*, p. 16. Exchange rate $1 = 214.8. The PDNA assessment methodology was time-bound; however, damage, loss, and needs may be higher than what is reported in the PDNA as at the time the report was made, certain areas are still inundated with water and the full extent of the impact in those select areas is yet to be determined. However, the PDNA provides an estimate on infrastructure and service delivery and the findings are not expected to increase significantly over time..

68 IPCC, *Climate Change Synthesis Report* (2023), p. 71.

69 IPCC, *Climate Change 2021 — The Physical Science Basis*, p. 1979.

70 *Ibidem*. The IPPC also noted that the diurnal temperature range (i.e., the difference between daily maximum and minimum temperatures) has reduced (–0.15°C to –0.08°C per decade) in some regions.

Punjab is already experiencing irreversible impacts because, with a warmer climate, the grain formation phase has become accelerated, leading to improper growth and reduced yields.[71]

24. Related to temperature extremes, desertification is a "serious problem in Pakistan".[72] The main problems in relation to desertification in Pakistan include: water erosion, wind erosion, depletion of soil fertility, deforestation, livestock grazing pressure, loss of biodiversity, water-logging and salinity, drought, and flooding.[73]

25. Pakistan is predominantly an arid to semi-arid country.[74] Productive land is scarce.[75] Two-thirds of Pakistan's population depend on drylands to support their livelihood. Of the 79.6 million hectares of Pakistan's total land mass, 62.4 million hectares are susceptible to desertification.[76] Only 5.2% of Pakistan's land is covered by forests.[77] For these reasons, much of Pakistan's agricultural land is vulnerable to desertification.

26. Although once water-rich, with water availability of more than 5,000 cubic meters per person per year in 1947, the country has become water-stressed, with 1,000 cubic meters per capita per year.[78] This is expected further to reduce to 860 cubic meters per person by 2025, which would make Pakistan the first water-scarce country in South Asia.[79]

27. Pakistan is affected by two primary types of drought: meteorological drought (which is usually associated with a precipitation deficit) and hydrological drought (which is usually associated with a deficit in surface and subsurface water flow, potentially

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71 IPCC, *Climate Change 2022 — Impacts, Adaptation and Vulnerability*, p. 2209.

72 IPCC, *Chapter 3, Desertification*, p. 264.

73 *National Action Programme to Combat Desertification in Pakistan* (2002), "Executive summary".

74 United Nations Convention to Combat Desertification, Performance Review and Assessment of Implementation System, Seventh Reporting Process, Report from Pakistan, 15 February 2023, p. 52.

75 United Nations Convention to Combat Desertification, The Global Land Outlook: Land Restoration for Recovery and Resilience (2nd edn., 2022), p. 93.

76 A. T. Virk, Ministry of Environment, Pakistan, "Sustainable Land Management to Combat Desertification in Pakistan", p. 3, available at https://www.un.org/esa/sustdev/sdissues/desertification/beijing2008/presentations/virk.pdf.

77 *Ibidem.*

78 United Nations Convention to Combat Desertification, Performance Review and Assessment of Implementation System, Seventh Reporting Process, Report from Pakistan, 15 February 2023, p. 37.

79 *Ibidem.*

originating in the region's larger river basins).[80] It was reported in 2021 that Pakistan faces an annual median probability of severe meteorological drought of around 3%.[81] The probability of meteorological drought was projected to increase, with very strong increases, under all emissions pathways.[82] Although uncertainty was high, it was projected that severe drought conditions might be experienced in Pakistan with an annual probability of 25%–65%, with a higher probability under higher emissions pathways.[83] The drought frequency has long been increasing in already arid and semi-arid areas.[84] In addition, there are serious increases in the frequency of severe drought in Pakistan's wetter areas in the north as well: what had been considered an extreme drought that would occur in 1-in-100-years may have a return period of 1-in-50-years under 1.5°C of warming or 1-in-20-years under 3°C of warming.[85]

II. THE MOST RELEVANT LEGAL OBLIGATIONS OF STATES WITH RESPECT TO CLIMATE CHANGE

28. The General Assembly's request refers to a number of rules and principles that are relevant to an assessment of the legal obligations of States with respect to climate change. Rather than seek to engage with each of these rules and principles, Pakistan has chosen to focus on what it considers to be the most directly relevant applicable law, namely:

(a) the obligation of all States to prevent significant transboundary harm to the environment;

(b) the principle of common but differentiated responsibilities;

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80 World Bank Group and Asian Development Bank, *Climate Risk Country Profile: Pakistan* (2021), p. 14.

81 *Ibidem.*

82 *Ibidem.*

83 *Ibidem.*

84 K. Ahmed, S. Shahid, and N. Nawaz, "Impacts of climate variability and change on seasonal drought characteristics of Pakistan" (2018), vol. 214, Atmospheric Research, pp. 364–74.

85 G. Naumann and others, "Global Changes in Drought Conditions under Different Levels of Warming" (2018), vol. 45, Geophysical Research Letters, pp. 3285–96.

(c) the most important principles in the 1992 United Nations Framework Convention on Climate Change ("UNFCCC")[86] and the 2015 Paris Agreement;[87] and,

(d) the most important principles in the 1992 United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa ("UNCCD").[88]

(a) The obligation to prevent significant transboundary harm to the environment

29. Customary international law imposes upon all States an obligation to ensure that activities within their jurisdiction or control do not cause significant harm to the environment of other States or areas beyond the limits of their jurisdiction. The Court has previously referred to this obligation as "the principle of prevention".[89]

30. As the Court has recognized, "the principle of territorial integrity is an important part of the international legal order and is enshrined in the Charter of the United Nations".[90] Respect for the fundamental principles of sovereign equality and territorial sovereignty of States entails both: (a) "the exclusive right to display the activities of a State",[91] including with respect to activities within its own territory, and (b) the duty to protect the rights of other States, including with respect to the prevention of transboundary harm resulting from those activities.[92]

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86 United Nations Framework Convention on Climate Change, 9 May 1992, 1771 *U.N.T.S.* 107.

87 Paris Agreement, 12 December 2015, 3156 *U.N.T.S.* 79.

88 United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa, 14 October 1992, 1954 *U.N.T.S.* 3.

89 *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay), I.C.J. Reports 2010*, p. 56, para. 101. This terminology is also used in preamble to the questions contained in the General Assembly's request for an advisory opinion: General Assembly Resolution 77/276, 29 March 2023.

90 *Accordance with International Law of the Unilateral Declaration of Independence in Respect of Kosovo, Advisory Opinion, I.C.J. Reports 2010*, p. 437, para. 80. See also *Corfu Channel (United Kingdom* v. *Albania), Merits, I.C.J. Reports 1949*, p. 35: "Between independent States, respect for territorial sovereignty is an essential foundation of international relations".

91 *Island of Palmas (Netherlands, USA)* (1928), vol. II, R.I.A.A. p. 839.

92 See e.g. *Trail Smelter case (United States, Canada)* (1941) vol. II, R.I.A.A 1905, p. 1965: "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." See also E. Jiménez de Aréchaga, "International Law in the Past Third of a Century" (1978), vol. 159, *Recueil des Cours*, p. 179: "a State is liable for conduct within its territory which has effect outside its territory damaging to other States, such as pollution".

31. The obligation to prevent significant transboundary harm is well-established in the Court's jurisprudence:

(a) In *Pulp Mills*, after recalling the above statement, the Court stated that:

> "The Court points out that the principle of prevention, as a customary rule, has its origins in the due diligence that is required of a State in its territory. It is 'every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States' (*Corfu Channel (United Kingdom* v. *Albania), Merits, Judgment, I.C.J. Reports 1949*, p. 22). A State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State".[93]

(b) In *Certain Activities carried out by Nicaragua in the Border Area*, the Court endorsed the above statement.[94]

(c) In *Dispute over the Status and Use of the Waters of the Silala* the Court observed that:

> "in general international law it is 'every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States' (*Corfu Channel (United Kingdom* v. *Albania), Merits, Judgment, I.C.J. Reports 1949*, p. 22). 'A State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State' in a transboundary context...".[95]

32. The existence of this obligation, which has been recognized in similar terms by other international courts and tribunals,[96] is reflected in many international instruments. For

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93 *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay), I.C.J. Reports 2010*, p. 56, para. 101.

94 *Certain Activities carried out by Nicaragua in the Border Area (Costa Rica* v. *Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua* v. *Costa Rica), Judgment, I.C.J. Reports 2015*, pp. 711–12, para. 118.

95 *Dispute over the Status and Use of the Waters of the Silala (Chile* v. *Bolivia), I.C.J. Reports* 2022, p. 648, para. 99, citing *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay), I.C.J. Reports 2010*, p. 56, para. 101; *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica* v. *Nicaragua)* and *Construction of a Road in Costa Rica along the San Juan River (Nicaragua* v. *Costa Rica), I.C.J. Reports 2015*, p. 706, para. 104.

96 See e.g. *South China Sea (Philippines* v. *People's Republic of China)(Merits)* (2016), vol. 170 I.L.R., p. 564, para. 941; *Iron Rhine ("Ijzeren Rijn")(Belgium/Netherlands)*(2005), vol. XXVII, R.I.A.A., pp. 66–67, para. 59; *Trail Smelter case (United States, Canada)* (1941) vol. II, R.I.A.A, p. 1965.

example, both Principle 21 of the 1972 Stockholm Declaration on the Human Environment and Principle 2 of the 1992 Rio Declaration on Environment and Development state:[97]

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

33. The obligation to prevent significant transboundary harm has rightly been characterized as perhaps "the central substantive rule of international environmental law".[98] As the tribunal in *Iron Rhine* observed, "in international environmental law, a growing emphasis is being put on the duty of prevention. Much of international environmental law has been formulated by reference to the impact that activities in one territory may have on the territory of another".[99]

34. As to the scope of the obligation, Pakistan makes five points.

35. First, as follows from the Court's previous pronouncements referred to above, this obligation requires that States prevent significant harm to all areas beyond their jurisdiction or control, including the environment of any other State, regardless of its geographical proximity.

36. Second, while those earlier pronouncements were not made in cases concerning transboundary environmental harm arising from anthropogenic greenhouse gas emissions, the obligation undoubtedly applies in relation to this specific type of

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97 Declaration on the Human Environment, Principle 21, adopted by the United Nations Conference on the Human Environment, Stockholm, 16 June 1972; Rio Declaration on Environment and Development, Principle 2, Report of the United Nations Conference on Environment and Development (Rio de Janeiro, 3-14 June 1992), A/CONF.151/26 (Vol. 1), 12 August 1992. See also Charter of Economic Rights and Duties of States, UN General Assembly, 6 November 1974, A/RES/3281, Article 30.

98 J. Brunnée, "Procedure and Substance in International Environmental Law" (2020), vol. 405, *Recueil des Cours*, p. 115. See also L. A. Duvic-Paoli and J. E. Viñuales, "Principle 2: Prevention" in J. E. Viñuales, *The Rio Declaration on Environment and Development: A Commentary* (2015), p. 136: "The prevention principle is in many ways the cornerstone of modern international environmental law. Its grounding in both customary and treaty law is uncontroverted and its operation as an architectural, interpretive and decision-making norm is well-established".

99 *Iron Rhine ("Ijzeren Rijn") (Belgium/Netherlands)*(2005), vol. XXVII, R.I.A.A. p. 116, para. 222.

environmental harm just as it does with respect to any other type. This is expressly recognized in the preamble to the UNFCCC.[100]

37. Third, the obligation applies with respect to all activities (planned activities and actual activities) over which a State exercises jurisdiction or control. This includes not only activities undertaken by the State itself, but also activities undertaken by private persons (i.e., natural persons or legal entities) where those activities are either undertaken on territory over which the State exercises jurisdiction or control or undertaken by persons over whom the State exercises jurisdiction or control.

38. Fourth, as to the threshold of "significant" harm:

    (a) Significant harm is "something more than 'detectable' but need not be at the level of 'serious' or 'substantial'" harm.[101]

    (b) The significance of potential harm is to be assessed:

        (i) Taking into account the extent to which the harm is expected to materialize as well as the gravity of the harm if it does materialize.[102]

        (ii) On a case-by-case basis, taking into account all relevant individual circumstances.[103] This includes, for example, the size, location and

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100 UNFCCC, preamble: "*Recalling also* that States have ... the responsibility to ensure that activities within their jurisdiction and control do not cause damage to the environment of other States or beyond the limits of national jurisdiction".

101 International Law Commission, Draft articles on Prevention of Transboundary Harm from Hazardous Activities, with commentaries, Report of the ILC on the Work of its Fifty-third, UN Doc A/56/10 (2001), Article 2, commentary para. (4). See also Sixth Report on International Liability for Injurious Consequences Arising out of Acts not Prohibited by International Law, 15 March 1990, UN Doc. A/CN.4/428, reproduced in Yearbook of the International Law Commission (1990), vol. II, Part One, p. 105, Article 2(h), which defines "significant harm" as "harm which is greater than the mere nuisance or insignificant harm which is normally tolerated".

102 International Law Commission, Draft articles on Prevention of Transboundary Harm from Hazardous Activities, with commentaries, Report of the ILC on the Work of its Fifty-third, UN Doc A/56/10 (2001), Article 1, commentary para (2).

103 International Law Commission, Draft articles on Prevention of Transboundary Harm from Hazardous Activities, with commentaries, Report of the ILC on the Work of its Fifty-third, UN Doc A/56/10 (2001), Article 2, commentary paras (4) and (7).

effects of the activities and the sensitivity of the receiving environment.[104]

(iii) By reference to the best available science. In the context of the significance of the harm caused by anthropogenic greenhouse gas emissions, the reports of the IPCC are of particular significance.

(iv) Applying the precautionary principle, a well-established principle of international environmental law, including with respect to climate change, as is reflected in Article 3(3) of the UNFCCC.[105]

39. Fifth, the obligation requires a State to "exercise due diligence in preventing significant transboundary [environmental] harm".[106] The standard of due diligence requires that States exercise a "duty of vigilance and prevention".[107] As Fitzmaurice observed: "since foreign countries are, by reason of the exclusive jurisdiction asserted by the territorial State, precluded from asserting or protecting their own rights in the area, it therefore becomes specially incumbent on the territorial State to use all due diligence to protect those rights".[108]

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104 See *Certain Activities carried out by Nicaragua in the Border Area (Costa Rica* v. *Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua* v. *Costa Rica), Judgment, I.C.J. Reports 2015*, pp. 711–12, para. 155; Separate Opinion of Judge *ad hoc* Dugard, para 19; International Law Commission, Draft articles on Prevention of Transboundary Harm from Hazardous Activities, with commentaries, Report of the ILC on the Work of its Fifty-third, UN Doc A/56/10 (2001), Article 2, commentary para (7).

105 Article 3(3) of the UNFCCC provides: "The Parties should take precautionary measures to anticipate, prevent or minimise the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost".

106 *Certain Activities carried out by Nicaragua in the Border Area (Costa Rica* v. *Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua* v. *Costa Rica), Judgment, I.C.J. Reports 2015*, p. 720, para. 153; p. 724, para. 168, referring to a State's "obligation to exercise due diligence in preventing significant transboundary harm". See also Separate Opinion of Judge Donoghue, p. 782, para. 1 ("I emphasize that States have an obligation under customary international law to exercise due diligence in preventing significant transboundary environmental harm"); Separate Opinion Judge *ad hoc* Dugard, p. 844, para. 7 ("The duty of due diligence therefore is the standard of conduct required to implement the principle of prevention").

107 *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay), Judgment, I.C.J. Reports 2010*, p. 83, para. 204. See also *Gabčikovo-Nagymaros Project (Hungary/Slovakia), Judgment, I.C.J. Reports*, p. 78, para. 141 ("in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment"). See also, more generally, *Affaire des biens britanniques au Maroc espagnole (Espagne contre Royaume-Uni)* (1925), vol. II, R.I.A.A., p. 644; G. Guillaume, "Terrorisme et droit international" (1989), vol. 215, *Recueil des Cours*, p. 391.

108 G. Fitzmaurice, "The Law and Procedure of the International Court of Justice: General Principles and Substantive Law" (1950), vol. 27, B.Y.I.L, p. 21.

(a) As the Court recognized in *Pulp Mills*: "A State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage" to areas beyond its jurisdiction.[109]

(b) Where it is not "fully possible" to eliminate the risk of such harm, a State must exert its "best efforts" to minimize and mitigate that risk.[110]

(c) Due diligence "entails not only the adoption of appropriate rules and measures, but also a certain level of vigilance in their enforcement and the exercises of administrative control applicable to public and private operators, such as the monitoring of activities undertaken by such operators".[111]

(d) The standard of due diligence "has to be more severe for the riskier activities".[112] In light of the scientific consensus that climate change arising from anthropogenic greenhouse gas emissions poses an existential threat, a particularly elevated form of due diligence must apply in this context.

(b) The principle of "common but differentiated responsibilities and respective capabilities"

40. All States have a role to play in pursuing the common goal of combating climate change. The example of Pakistan — one among many — shows that developing States are taking this responsibility seriously.[113]

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109 *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay), Judgment, I.C.J. Reports 2010*, pp. 55–56, para. 101. See also *Responsibilities and Obligations of States with Respect to Activities in the Area, ITLOS Reports 2011*, p. 41, para. 110.

110 International Law Commission, Draft articles on Prevention of Transboundary Harm from Hazardous Activities, with commentaries, Report of the ILC on the Work of its Fifty-third, UN Doc A/56/10 (2001), Article 3, Commentary at para (3). See also *Iron Rhine ("Ijzeren Rijn")(Belgium/Netherlands)*(2005), vol. XXVII, R.I.A.A., p. 66, para. 59 ("where development may cause significant harm to the environment there is a duty to prevent, or at least mitigate, such harm"); X. Hanqin, *Transboundary Damage in International Law* (2003), p. 163 ("[w]hen an activity bears a significant risk of transboundary damage the government must take all necessary measures to prevent such damage").

111 *Pulp Mills on the River Uruguay (Argentina* v. *Uruguay), I.C.J. Reports 2010*, pp. 79–80, para. 197.

112 *Responsibilities and Obligations of States with Respect to Activities in the Area, ITLOS Reports 2011*, p. 43, para. 117.

113 See paragraph 10 above.

41. The role of any given State and the extent of its obligations must, however, depend on its particular socio-economic situation and its historical contribution (if any) to climate change through anthropogenic greenhouse gas emissions. This follows from the principle of equity and is reflected in the principle of common but differentiated responsibilities and respective capabilities.

42. The principle of common but differentiated responsibilities and respective capabilities has two components. The first component takes account of historical, current, and future contributions to environmental degradation. The second component takes account of economic capabilities to contribute to environmental protection.

43. The principle of common but differentiated responsibilities and respective capabilities is well-established as a general principle of international law, as is reflected in numerous international instruments:

(a) Principle 23 of the 1972 Stockholm Declaration recognizes that: "it will be essential in all cases to consider ... the extent of the applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the developing countries".

(b) Principles 6 and 7 of the 1992 Rio Declaration state:

> "The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority.
>
> In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities".

(c) Article 3(1) of the UNFCCC provides:

> "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 combatting climate change and the adverse effects thereof."

(d) The principle is also reflected in the provisions of the Paris Agreement:

i. As per the preamble, States Parties are, in the pursuits of its objective, "guided by its principles, including the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances".

ii. Article 2(2) states that the agreement "will be implemented to reflect equity and the principle of common but differentiated responsibilities and capabilities, in the light of different national circumstances."

iii. Article 4(3) provides that: "Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of national circumstances."

iv. Similarly, Article 4(19) provides that: "All Parties should strive to formulate and communicate long-term low greenhouse gas emission development strategies, mindful of Article 2 taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances."

(e) The UNCCD also recognizes the importance of the principle in the implementation of the obligations set out under the Convention:

i. The preamble provides for the "importance of the provision to affected developing countries, particularly in Africa, of effective means, *inter alia* substantial financial resources, including new and additional funding, and access to technology without which it will be difficult for them to implement fully their commitments under this Convention."

ii. Article 6 imposes direct obligations upon developed country Parties, in addition to their general obligations, which include *inter alia* the provision of substantial financial resources or other forms of support to assist affected developing country Parties as well as to promote and facilitate access by affected country Parties, particularly affected developing country Parties, to appropriate technology, knowledge and know-how.

44. International law has long recognized that there may, on account of differing levels of resources and development between States, be a need for accommodation for differentiated responsibilities.[114] As mentioned above, this is an expression of the general principle of equity in international law, which in turn, as the Court has observed, "is a direct emanation of the idea of justice".[115]

45. In the context of climate change, the principle of common but differentiated responsibilities and respective capabilities plays a critical role in reconciling the different interests of States in as equitable a manner as is possible.[116] The principle also

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114 See e.g. Treaty of Peace, 28 June 1919, 225 *C.T.S.* 188, Article 405(3); Constitution of the International Labour Organization, 11 April 1919, 14 *U.N.T.S.* 40 (as amended), Article 19(3): "have due regard to those countries in which climatic conditions, the imperfect development of industrial organisation of other special circumstances make the industrial conditions substantially different and shall suggest the modifications, if any, which it considers may be required to meet the case of such countries".

115 *Continental Shelf (Tunisia/Libyan Arab Jamahiriya), I.C.J. Reports 1982*, p. 60, para. 71; *Continental Shelf (Libyan Arab Jamahiriya* v. *Malta), I.C.J. Reports*, p. 39, para. 45. See also J. Salmon (ed.), *Dictionnaire de droit international public* (2001), p. 441 ("*l'équité est l'application de la justice dans un cas d'espèce*"); Resolution of the *Institut de Droit International* (1937), vol. 38, *Annuaire de l'Institut de Droit International* p. 271 ("*l'Équité est normalement inhérente à une saine application du droit*"); C. de Visscher, *De l'équité dans le règlement arbitral des litiges de droit international public* (1972), p. 6 ("*l'équité est la norme du cas individuel*"); P. Reuter, "Quelques réflexions sur l'équité en droit international" (1980), vol. 15, Revue belge de droit international, p. 166; R. Higgins, *Problems and Process: International Law and How We Use It* (1994), p. 222.

116 On the principle of equity more generally, see *Fisheries Jurisdiction (United Kingdom* v. *Iceland), I.C.J. Reports 1974*, p. 30, para. 70. The principle of equity is also recognized in Islamic law, where it performs

reflects the variable nature of the standard of due diligence beyond the minimal content of that obligation that applies to all States. Depending on the resources that are available to them and their level of development, different States will have different means at their disposal which can be used as "best efforts" to prevent or mitigate significant transboundary harm.

46. Climate change is primarily the result of the untrammelled emission, since the industrial revolution, of greenhouse gases by developed States. The operation of the principle of common but differentiated responsibility and respective capabilities requires that developed States bear their historical responsibilities and use all the (considerable) means at their disposal to discharge their obligations to prevent and mitigate the adverse impacts of climate change, including by:

    (a) undertaking and complying with the necessary economy-wide absolute emission reduction targets; and

    (b) supporting developing States, including through facilitating access to the funding and technology necessary to enhance their capacities and place at their disposal improved means for implementing the obligation to prevent significant transboundary harm arising from greenhouse gas emissions.

(c) The most important principles of the UNFCCC and Paris Agreement

47. The international community has for decades taken certain — small but not entirely insignificant — steps to tackle the problem of climate change through political negotiations. Among the most important instruments to emerge from these efforts have included the UNFCCC and the 2015 Paris Agreement. The UNFCCC entered into force on 21 March 1994. The Paris Agreement entered into force on 4 November 2016. These instruments:

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a similar function: see e.g. S. Pirzada, "Islam and International Law" in *Essays on International Law* (1981), p. 59; S. Mahmassani, "The Principles of International Law in the Light of Islamic Doctrine" (1966), vol. 117, *Recueil des Cours*, p. 236; A. Rechid, "L'Islam et le droit des gens" (1937), vol. 60, *Recueil des Cours*, p. 397.

(a) lay down important obligations of States in respect of climate change, which are among the most directly relevant applicable law governing the questions of which the Court has been seised; and

(b) are — on the basis of equity and common but differentiated responsibilities — shot through with the premise that the developed country Parties must take the lead in combating climate change and its adverse effects.

48. For the avoidance of doubt, Pakistan's position is that, in the context of greenhouse gas emissions and climate change, the scope of the obligation to prevent significant transboundary harm is not reflected in the commitments that States Parties to the UNFCCC and the Paris Agreement have thus far undertaken pursuant to those agreements.

49. The UNFCCC is a framework agreement. It is so-called because it is "expressly designed not as a final regulation but rather to create a framework for coordinated efforts to tackle a problem over the longer term".[117] The UNFCCC lays down, together with the Paris Agreement, certain very important obligations that States have undertaken with a view to combating climate change, which the preamble of the UNFCCC describes as "a common concern of humankind".[118] To use the Court's word in *Reservations to the Convention on Genocide* Advisory Opinion, this means that, as with the high ideals inspiring conventions adopted for a purely humanitarian and civilizing purpose,[119] "[t]he high ideals which inspired the Convention provide, by virtue of the common will of the parties, the foundation and measure of all its provisions".[120]

50. The main objective of the UNFCCC and the Paris Agreement is to prevent dangerous anthropogenic interference with the climate system.[121] At the core of the climate régime

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117 Sir Frank Berman and E. Bjorge, "Treaties and Other International Instruments II—Treaty, Convention, Agreement, Protocol" in Sir Ivor Roberts (ed.), *Satow's Diplomatic Practice* (8th edn., 2023), pp. 529–30.

118 See also Paris Agreement, preamble.

119 e.g. Convention on the Prevention and Punishment of the Crime of Genocide, 9 December 1948, 78 *U.N.T.S.* 277.

120 *Reservations to the Convention on Genocide, Advisory Opinion, I.C.J. Reports 1951*, p. 23.

121 Article 2 of the UNFCCC; Article 2(1)(a) of the Paris Agreement.

under the UNFCCC are adaptation and increasing resilience to climate change. The objective of the UNFCCC is, according to its Article 2, to achieve "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system". This objective "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".[122] It has been pointed out that Article 2 lays down a "complex and ambitious" objective.[123]

51. If the UNFCCC lays down the general objective of stabilizing greenhouse gas concentrations in the atmosphere, the Paris Agreement adds more specific obligations. Article 2(1)(a) of the Paris Agreement provides:

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

52. Article 4(1) provides that "[i]n order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible".

53. The means chosen by the States Parties to the UNFCCC régime in order to achieve their high aims was not a synallagmatic treaty of the traditional kind, where it would be possible to speak of "the maintenance of a perfect contractual balance between rights and duties".[124] Instead the UNFCCC focusses on equity and sets out common but

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122 Article 2 of the UNFCCC.

123 L. Boisson de Chazournes, "Le droit international au chevet de la lutte contre le réchauffement planétaire: éléments d'un régime" in *Mélanges en l'honneur du Professeur H. Thierry* (1998), p. 47.

124 *Cf. Reservations to the Convention on Genocide, Advisory Opinion, I.C.J. Reports 1951*, p. 23.

differentiated responsibilities for developed and developing States. The result is a set of obligations designed to be less onerous for developing country Parties.[125]

54. Thus Parties have, under Article 3(1) of the UNFCCC, committed to "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". As the provision goes on to lay down, "[a]ccordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof".

55. Article 4(1) of the Paris Agreement provides that "[i]n order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, *recognizing that peaking will take longer for developing country Parties*".[126] Under Article 4(1)(d) of the UNFCCC, States shall "[p]romote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems".

56. Under Article 4(2)(a) of the UNFCCC, each of the developed country Parties, and other Parties included in Annex I, has undertaken to "adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs". Article 5 of the Paris Agreement provides that "Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1 (*d*), of the Convention, including forests."

57. Under Article 4(3) of the UNFCCC, developed country Parties and other developed Parties included in Annex II "shall provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with

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125 e.g. Article 4(2), where "[t]he developed country Parties and other Parties included in annex I commit themselves" to certain specific obligations not binding to other Parties.

126 Emphasis added.

their obligations under Article 12, paragraph 1". Article 12 of the UNFCCC relates to communication of information related to implementation. Under Article 4(4) of the UNFCCC, the developed country Parties and other developed Parties included in Annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.

58. Under Article 4(5) of the UNFCCC, the developed country Parties and other developed Parties included in Annex II "shall 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. In this process, the developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties."

59. As regards the commitments laid down in Article 4 of the UNFCCC, it is provided in Article 4(8) that "[i]n 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".

60. The importance of the terms just set out is evident from Article 4(7), which makes implementation by developing States Parties dependent "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".

61. Similar obligations are laid down in the Paris Agreement. Under its Article 9(1), 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". Under Article 9(4), "[t]he provision of

scaled-up financial resources should aim to achieve a balance between adaptation and mitigation". Article 11 provides that "[c]apacity-building under this Agreement should enhance the capacity and ability of developing country Parties, in particular countries with the least capacity, such as the least developed countries, and those that are particularly vulnerable to the adverse effects of climate change, such as small island developing States, to take effective climate change action, including, *inter alia*, to implement adaptation and mitigation actions, and should facilitate technology development, dissemination and deployment, access to climate finance, relevant aspects of education, training and public awareness, and the transparent, timely and accurate communication of information." Under Article 4(4) of the Paris Agreement, "[d]eveloped country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets. Developing country Parties should continue enhancing their mitigation efforts, and are encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances."

(d) The most important principles of the UNCCD

62. The efforts of the international community to combat desertification and mitigate the effects of drought have led to the adoption of the UNCCD.[127] The Convention entered into force on 26 December 1996. It has been near-universally ratified, which underscores the importance that States attach to combatting the significant challenges which desertification and drought pose, in particular to developing countries.[128]

63. Part of the context of the UNCCD is the increased recognition, including by the political organs of the United Nations, of the connection between climate change and desertification and drought. As the Security Council has recognized, "the adverse effects of climate change, ecological changes, and natural disasters, among other factors can contribute to desertification and drought".[129] Not only does climate change increase aridity in areas that are already among the most vulnerable in the world: desertification

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127 United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa, 14 October 1992, 1954 *U.N.T.S.* 3.

128 The Preamble to the UNCCD recognizes that desertification and droughts are highly concentrated in developing countries, in particular the least developed countries.

129 Security Council resolution 2631 (2022), 26 May 2022; see also Security Council resolution 2657 (2022), 31 October 2022; Security Council resolution 2659 (2022), 14 November 2022.

also aggravates climate change as dryland soils contain significant amounts of the world's carbon stores as well as nearly all inorganic carbon.[130] Tackling this issue is, therefore, an essential pre-requisite in the fight against climate change.

64. The nexus between climate change and desertification and drought is also stressed by the UNCCD itself. Article 8 of the UNCCD stipulates that "[t]he Parties shall encourage the coordination of activities and carried out under this Convention ... and the United Nations Framework on Climate Change and the Convention on Biological Diversity in order to derive maximum benefit from activities under each agreement." The States Parties to the UNCCD seek through that instrument to limit the impacts of climate change by, *inter alia:*

(a) developing National Action Programmes to incorporate long-term strategies to combat desertification and mitigate the effects of droughts, enhancing national climatological, meteorological, and hydrological capabilities, and promoting policies and strengthening institutional frameworks to develop cooperation and coordination between the government and local populations;[131]

(b) mandating affected country Parties to undertake measures, including but not limited to: the establishment of strategies and priorities within the framework of sustainable development plans and/or policies to combat desertification and mitigate the effects of drought;[132]

(c) stressing the importance of international cooperation, including but not limited to: the transfer of technology; and

(d) providing, on the basis of common but differentiated responsibilities, substantial financial resources to assist affected developing countries.

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130 UN Millennium Ecosystem Assessment, *Ecosystems and Human Well-Being: Desertification Synthesis* (2005), p. 18.

131 UNCCD, Article 10.

132 UNCCD, Article 5.

65. Pakistan has, since becoming party to the UNCCD on 24 February 1997, taken a number of steps to fulfil its obligations under the Convention, including those set out above in (a) and (b).[133] Notable steps include:

(a) the UGPP, under which one billion trees over an area of 6,000 square kilometres were planted in Khyber Pakhtunkhwa province since 2014 in degraded forest lands and barren lands;

(b) the Sustainable Land Management Programme, Sustainable Forest Management, Mangrove Restoration Programme along the coastal areas;

(c) Tarbela Watershed Management Projects in the province of Khyber Pakhtunkhwa; and

(d) Mangla Watershed Management Projects in Azad Jammu & Kashmir and Mangroves for the Future Programme have been implemented.[134]

66. Pakistan has also introduced technological improvements at the federal and provincial levels including, *inter alia*: early warning weather systems, weather radars, forest monitoring equipment including monitoring drones, solar and wind energy technologies, efficient water use techniques, and laser land levelling. Capacities of relevant departments have also been developed in the application of geographic information systems and remote sensing for natural resource planning and monitoring.[135]

67. Pakistan's National Action Programme, which dates from 2002, is a comprehensive document aimed at identifying the factors contributing to the process of desertification in Pakistan and developing measures and strategies. Further, the National Action Programme sets out Pakistan's institutional framework for combating desertification and mitigating the effects of drought, development of early warning mechanisms,

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133 See generally UNCCD, Pakistan's Country Profile available at https://www.unccd.int/our-work-impact/country-profiles/pakistan.

134 UNCCD, *Report from Pakistan* (2022), p. 8.

135 UNCCD, *Report from Pakistan* (2022), p. 61.

capacity-building, and generating funding to implement the aims of the National Action Programme.

68. Pakistan submitted in 2020 a voluntary Land Degradation Neutrality Targets report on the basis of its specific national circumstances and development priorities. It has set ambitious targets including, *inter alia*: limiting conversion of forest lands to artificial land, improving climate change resilience for sustainable water management, and reclaiming forest lands.

69. Notwithstanding these efforts, Pakistan requires sustained financial and technical assistance from developed States to halt and reverse the adverse effects of land degradation and, by extension, climate change.[136]

70. As noted above, the UNCCD recognizes the importance of the principle of common but differentiated responsibilities[137] and acknowledges the importance of international cooperation between developed and developing countries,[138] particularly in regard to technology transfer and financial assistance.

71. In respect to technology transfer, the UNCCD provides for the following:

    (a) developed country Parties undertake to "promote and facilitate access by affected country Parties, particularly, affected developing country Parties, to appropriate technology, knowledge and know-how";[139] and

    (b) Similarly, Article 18 mandates State Parties to undertake "as mutually agreed and in accordance with their respective national legislation and/or policies to promote finance and/or facilitate the financing of the transfer acquisition, adaptation and development of environmentally sound, economically viable and

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136 *Ibidem.*

137 See generally the distinction between Article 5 and 6, which set out the obligations of affected countries and developed countries.

138 Preamble of the UNCCD ("acknowledges that the desertification and drought problems are of a global dimension and "joint action of the international community is needed to combat desertification and/or mitigate the effects of drought."); see also Article 4(1), Article 4(2)(b), (e), (f), Article 12 and Article 14 of the UNCCD.

139 UNCCD, Article 6(e). See also Article 20(2)(c) of the UNCCD.

social acceptable technologies relevant to combating desertification or mitigation the effects of drought with a view to contributing the achievement of sustainable development in affected areas." In particular, Article 18(1)(c) requires parties to facilitate technology cooperation among affected country Parties through financial assistance or other appropriate means.

72. The UNCCD also recognizes the "central importance of financing to the achievement of the objective[s] of the Convention".[140] In particular:

(a) Article 6 of the UNCCD sets out obligations of developed country Parties to include the provision of "substantial financial resources and other forms of support to assist affected developing countries";[141] and

(b) Article 20(2) similarly mandates developed country Parties to mobilize substantial financial resources, including grants and concessional loans to support implementation programmes to combat desertification and mitigate the effects of drought. In addition, the provision also stresses the promotion and mobilisation of adequate, timely, and predictable financial resources, including new and additional funding from the Global Environment Facility for the agreed incremental costs of those activities concerning desertification.

III. CONCLUSION

73. As this Written Statement has explained, Pakistan faces an entirely disproportionate impact to the severe and immediate effects of climate change. Pakistan has nevertheless demonstrated its commitment to addressing these challenges through significant national efforts, including comprehensive environmental and sustainable development initiatives. The enormous scale of the widespread adverse impacts of historical and ongoing anthropogenic emissions of greenhouse gases necessitates a robust opinion from the International Court of Justice.

74. The present Written Statement has, against that background, set out what Pakistan considers to be the most relevant legal obligations of States with respect to climate

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140 Article 20 of the UNCCD; see also Article 7(1) of the Asian Annex.

141 Article 6(b) of the UNCCD.

change. Those are: the obligation of all States to prevent significant transboundary harm to the environment; the principle of common but differentiated responsibilities and respective capabilities; the most important principles under the UNFCCC and the Paris Agreement; and the most important principles under the UNCCD.

75. Pakistan hopes that this Written Statement will be of assistance to the Court in answering Question (a) of the General Assembly's Request.[142]

22/03/24

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142 Pakistan reserves the right to develop, in later stages of the present proceedings, its submissions as regards especially Question (b).