INTERNATIONAL COURT OF JUSTICE

OBLIGATIONS OF STATES IN RESPECT OF CLIMATE CHANGE (REQUEST FOR ADVISORY OPINION)

WRITTEN STATEMENT OF THE KINGDOM OF TONGA

15 MARCH 2024

CONTENTS

CHAPTER I. INTRODUCTION

1. On 29 March 2023, Resolution 77/276 was adopted by consensus by the United Nations General Assembly (**UNGA**), requesting the International Court of Justice (**Court**) to render an advisory opinion on the obligations of States in respect of climate change, specifically:

> "*Having particular regard to the Charter of the United Nations, the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the United Nations Framework Convention on Climate Change, the Paris Agreement, the United Nations Convention on the Law of the Sea, the duty of due diligence, the rights recognized in the Universal Declaration of Human Rights, the principle of prevention of significant harm to the environment and the duty to protect and preserve the marine environment,*
>
> > *(a) What are the obligations of States under international law to ensure the protection of the climate system and other parts of the environment from anthropogenic emissions of greenhouse gases for States and for present and future generations?*
> >
> > *(b) What are the legal consequences under these obligations for States where they, by their acts and omissions, have caused significant harm to the climate system and other parts of the environment, with respect to:*
> >
> > > *(i) States, including, in particular, small island developing States, which due to their geographical circumstances and level of development, are injured or specially affected by or are particularly vulnerable to the adverse effects of climate change?*
> > >
> > > *(ii) Peoples and individuals of the present and future generations affected by the adverse effects of climate change*"?[1] (**Request**).

2. By letters dated 17 April 2023, the Deputy-Registrar gave notice of the Request to all States entitled to appear before the Court, pursuant to Article 66(1) of the Statute of the International Court of Justice (**Statute**).

3. In its Order of 20 April 2023, the Court decided that "*the United Nations and its Member States are considered likely to be able to furnish information on the questions*

[1] *Request for an advisory opinion of the International Court of Justice on the obligations of States in respect of climate change*, GA Res 77/276, UN GAOR, 77th sess, 64th plen mtg, UN Doc A/77/PV.64 (29 March 2023) ('*Request*').

submitted to the Court for an advisory opinion and may do so within the time-limits fixed in this Order", and fixed 20 October 2023 as the time-limit within which written statements on the question could be presented to the Court.

4. In its Order of 4 August 2023, the Court extended:

   4.1 to 22 January 2024 "*the time-limit within which all written statements on the questions may be presented to the Court in accordance with Article 66, paragraph 2, of the Statute*"; and

   4.2 to 22 April 2024 "*the time-limit within which States and organizations having presented written statements may submit written comments on the other written submission in accordance with Article 66, paragraph 4, of the Statute*".

5. In its Order of 15 December 2023, the Court extended:

   5.1 to 22 March 2024 "*the time-limit within which all written statements on the questions may be presented to the Court in accordance with Article 66, paragraph 2, of the Statute*"; and

   5.2 to 24 June 2024 "*the time-limit within which States and organizations having presented written statements may submit written comments on the other written statements in accordance with Article 66, paragraph 4, of the Statute*".

6. The Kingdom of Tonga (**Tonga**) submits this written statement in accordance with the Order of 15 December 2023.

7. Tonga confirms that this written statement is without prejudice to its rights under international law, unrelated to the current Request.

8. Tonga's statement proceeds as follows:

   8.1 **Chapter II** examines the jurisdiction of the Court to respond to the Request.

   8.2 **Chapter III** provides an overview of the geopolitical, environmental, social, and economic background to the Kingdom of Tonga.

8.3 **Chapter IV** outlines the effects of anthropogenic greenhouse gas emissions on Tonga.

8.4 **Chapter V** outlines Tonga's approach to the applicable law and rules of interpretation relevant to the Request, considering that the Court must apply the United Nations Framework Convention on Climate Change (**UNFCCC**), the Paris Agreement, and the Kyoto Protocol to answer the questions in the Request.

8.5 **Chapter VI** sets out preliminary considerations and interprets the questions put to the Court.

8.6 **Chapter VII** examines States' obligations under the UNFCCC, the Paris Agreement, and the Kyoto Protocol, and outlines the different regimes applying to developed and developing States under the principle of common but differentiated responsibilities and respective capabilities (**CBDR-RC**).

8.7 **Chapter VIII** examines the interaction of climate change and States' obligations under the Law of the Sea, including issues regarding maritime entitlements and statehood.

8.8 **Chapter IX** examines the interaction of climate change and human rights.

8.9 **Chapter X** discusses State responsibility for climate change.

8.10 **Chapter XI** concludes Tonga's submission.

CHAPTER II. JURISDICTION

9. Tonga submits that the Court has jurisdiction to render an advisory opinion pursuant to Article 96(1) of the Charter of the United Nations (**Charter**), and Article 65(1) of the Statute. The UNGA, as a competent body, may request the Court to give an advisory opinion "*on any legal question*".[2] Three additional criteria must be established to determine the Court's jurisdiction to respond to the Request:

[2] *Charter of the United Nations*, opened for signature 26 June 1945, 1 UNTS XVI (entered into force 24 October 1945), art 96(1) ('*Charter*').

9.1 *first*, the questions must be of a legal character;[3]

9.2 *second*, the competent body requesting the advisory opinion must have a clear and direct interest in the subject matter of the opinion;[4] and

9.3 *third*, there are no "*compelling reasons*" that dictate the exercise of the Court's discretion not to render an advisory opinion.[5]

10. *First*, the questions put to the Court by the UNGA are of a legal nature. The request before the Court seeks clarification of existing obligations of States under general international law as relates to climate change. As the Court articulated in *Chagos*, "*a request from the General Assembly for an advisory opinion to examine a situation by reference to international law concerns a legal question*".[6]

11. *Second*, the UNGA has a clear and direct interest in the subject matter of the opinion sought which will assist in the proper exercise of its functions. The UNGA has published numerous resolutions concerning climate change,[7] and the climate crisis regularly forms a key part of the General Assembly High-level Week, including the 2019 Climate Action Summit and the 2023 Climate Ambition Summit.

12. *Finally*, in the history of the Court, there has been no refusal, based upon the discretionary power of the Court, to decline to act upon a request for advisory opinion.[8] It is Tonga's view that the present case should not be the first. Rather, there are "*compelling reasons*" that weigh in favour of the exercise of the Court's discretion to

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3 *Certain Expenses of the United Nations (Article 17, Paragraph 2, of the Charter) (Advisory Opinion)* [1962] ICJ Rep 151, 155 ('*Certain Expenses of the United Nations*').

4 *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory (Advisory Opinion)* [2004] ICJ Rep 136, 163 [62] ('*Construction of a Wall*').

5 *Judgment of the Administrative Tribunal of the ILO upon Complaints Made against UNESCO (Advisory Opinion)* [1956] ICJ Rep 77, 86; *Certain Expenses of the United Nations* (n 3).

6 *Legal Consequences of the Separation of the Chagos Archipelago from Mauritius in 1965 (Advisory Opinion)* [2019] ICJ Rep 95, 112 [58] ('*Chagos*').

7 See for example, Protection of global climate for present and future generations of mankind, GA Res 43/53, UN Doc A/Res/43/53 (27 January 1989, adopted 6 December 1988); Protection of global climate for present and future generations GA Res 63/32, UN Doc A/Res/63/32 (26 November 2008); Protection of global climate for present and future generations of humankind GA Res 69/220, UN Doc A/Res/69/220 (19 December 2014); Protection of global climate for present and future generations GA Res 78/153, UN Doc A/Res/78/153 (19 December 2023); Oceans and the law of the sea GA Res 77/248, UN Doc A/Res/77/248 (30 December 2022).

8 The Court has, however, refused a request from the World Health Organisation (**WHO**) for an advisory opinion on the *Legality of the Use by a State of Nuclear Weapons in Armed Conflict* in 1996 on jurisdictional grounds. The Court decided that the question of the *legality* of such action was not within the scope of the activities of the WHO: *Legality of the Use by a State of Nuclear Weapons in Armed Conflict (Advisory Opinion)* [1996] ICJ Rep 66.

provide an advisory opinion including assisting the UNGA in exercising its functions in addressing climate change, clarifying States' climate change obligations including identifying any gaps in the law, and guiding States' negotiations and initiatives under the auspices of the UNFCCC, the Kyoto Protocol, and the Paris Agreement.[9]

13. For these reasons, Tonga submits the Court has jurisdiction to render the advisory opinion sought.

PART A

14. This section responds to Part A of the question put to the Court, namely:

> "*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?*"

CHAPTER III. BACKGROUND TO THE KINGDOM OF TONGA

15. This Chapter provides context to Tonga's response to Part A by providing an overview of the geopolitical, environmental, social, and economic background to Tonga.

Constitutional monarchy

16. Tonga is an archipelago located in the South Pacific Ocean. The form of Government is a Constitutional monarchy as set out in the Act of the Constitution of Tonga [Cap.1.01] which was enacted in 1875. Tonga is the only surviving monarchy in the Pacific and the current Head of State is His Majesty King Tupou VI who succeeded his late brother, King George Tupou V to the throne in 2012. His Majesty also holds the title as "Hau 'o e Fonua" or "Supreme Head" of the traditional kingship system of the Kingdom.[10] The current Head of Government is Hon. Hu'akavameiliku who was elected as Prime Minister in 2021.

17. Tonga was first inhabited approximately 3,000 years ago by Austronesian-speaking people of the Lapita culture, who originated from East Asia. The Lapita were skilled

[9] *Threat or Use of Nuclear Weapons (Advisory Opinion)* [1996] ICJ Rep 266, [17].

[10] Kingdom of Tonga, *Cabinet Manual of His Majesty's* Cabinet, Cap 01.012 (2016) [11].

sailors and navigators, and who subsisted largely by fishing. This was the foundation for Tongans navigational and astronomical prowess as ocean-voyaging navigators.

18. From at least the 10th century Tonga was ruled by sacred kings, the Tu‘i Tonga, the supreme line of Kings. In around 1470, the reigning Tu‘i Tonga conferred powers to his brother under the title of Tu‘i Ha‘atakalaua. A similar transfer in around 1600 resulted in the creation of a third line, the Tu‘i Kanokupolu, forming the three royal dynasties. [11]

19. Between 1799 and 1852, Tonga underwent a period of civil war. This was ended by Taufa‘ahau, who became Tu‘i Kanokupolu. He transformed Tonga from chieftainship to a unified Kingdom and took the title King George Tupou I in 1845 ruling over the entire Kingdom. King George Tupou I was the founder of modern Tonga and reigned from 1845 to 1893, during which Tonga became a unified country. It enacted a modern written constitution in 1875, as well as a legal code and administrative structure.[12] Tonga's independence and sovereignty was recognised by treaty with France (1855), Germany (1876), Great Britain (1879), and the United States (1888).[13]

History as a British Protectorate

20. In 1900, the new King of Tonga signed a Treaty of Friendship and Protectorship with Great Britain (**Protectorship Treaty**). Under the Protectorship Treaty Tonga retained its autonomy and controlled its own internal administration, while control of foreign affairs rested solely with the British Foreign Office. Three amendments were made to the Protectorship Treaty in 1952, 1958 and 1968.

21. Tonga withdrew from the Protectorship Treaty on 4 June 1970 regaining full control over its external affairs. After regaining full control over its external affairs, Tonga set up Foreign Resident Missions initially in New Zealand and the United Kingdom, before

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11 Sione Lātūfeku, ‘Chapter 1: Traditional Polity in Tonga’, *Church and State in Tonga: The Wesleyan Methodist missionaries and political development, 1822-1875* (Pacific Studies Series, UQ ePress, 2014)

12 The Act of the Constitution of Tonga continues to exist until the present day and remains the Supreme Law of the Kingdom: Kingdom of Tonga, Constitution of Tonga, Cap 1.01 (Revised in 2020) (Web Page) < https://ago.gov.to/cms/images/LEGISLATION/PRINCIPAL/1988/1988-0002/ConstitutionofTonga.pdf_3.pdf>

13 Ministry of Foreign Affairs and the Attorney General's Office Government of the Kingdom of Tonga, Tonga Treaty Collection: Tonga's Collection of Treaties, Agreements, and Arrangements (1st ed, 2023) (Web Page) <https://ago.gov.to/cms/coming-soon/tonga-treaty-collection-2023.html?download=2581:tonga-treaty-collection-2023>

steadily growing its bilateral relations. Tonga joined the United Nations in 1999 and became a member of the World Trade Organization in 2007.

22. This growth in bilateral relations was accompanied by a growth and diversification of Tonga's economy. Tonga has also received economic, development, and technical aid. This overseas development assistance has supported Tonga's national agricultural, fishing and tourism industries, and provided support for infrastructure and rural development.

Geographic considerations

23. The Kingdom of Tonga lies between 15˚ and 23˚ 50 South Latitude and 173˚ to 177˚ West Longitude. Tonga is an ocean kingdom, with only 750 square kilometres (around 0.1 percent) of its 700,000 square kilometres of territory above the current water line. As such, the ocean plays a central role in Tongan daily life, both from a cultural and an economic perspective. Importantly, Tonga is considered a Small Island Developing State (**SIDS**).[14]

24. The Tongan archipelago consists of four clusters of a total of 176 coral and volcanic islands with a total area of 747 square kilometres of which 36 are inhabited. Tonga's islands are divided into the following islands of Tongatapu (260 square kilometres), 'Eua (87 square kilometres), Ha'apai Group (109 square kilometres), Vava'u Group (121 square kilometres), Niuafo'ou (15 square kilometres), and Niuatoputapu (71.7 square kilometres),[15] and the two islands of Tele-ki-Tonga and Tele-ki-Tokelau on the Southwest of 'Ata Island. The capital, Nuku'alofa, is located on the main island of Tongatapu.[16] These islands cover an 800-kilometre long north-south line and span an Exclusive Economic Zone (**EEZ**) area of approximately 700,000 square kilometres. A map of the Tongan archipelago is illustrated in **Figure 1** below.[17]

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14 United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, 'List of SIDS' (Web Page) <https://www.un.org/ohrlls/content/list-sids>.

15 Kingdom of Tonga, Tonga's Second Nationally Determined Contribution (December 2020) 2, 19 (Web Page) <https://unfccc.int/sites/default/files/NDC/2022-06/Tonga%27s%20Second%20NDC.pdf> ('*Tonga NDC*').

16 Sophie Foster and Sione Lātūfeku, 'Tonga', *Encyclopaedia Britannica* (Web Page, 3 March 2024) <https://www.britannica.com/place/Tonga>.

17 IPCC, 'The Climate System: an Overview' in J.T. Houghton et al (eds), *Climate Change 2001: The Scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2001) 87 <https://www.ipcc.ch/site/assets/uploads/2018/03/TAR-01.pdf>.

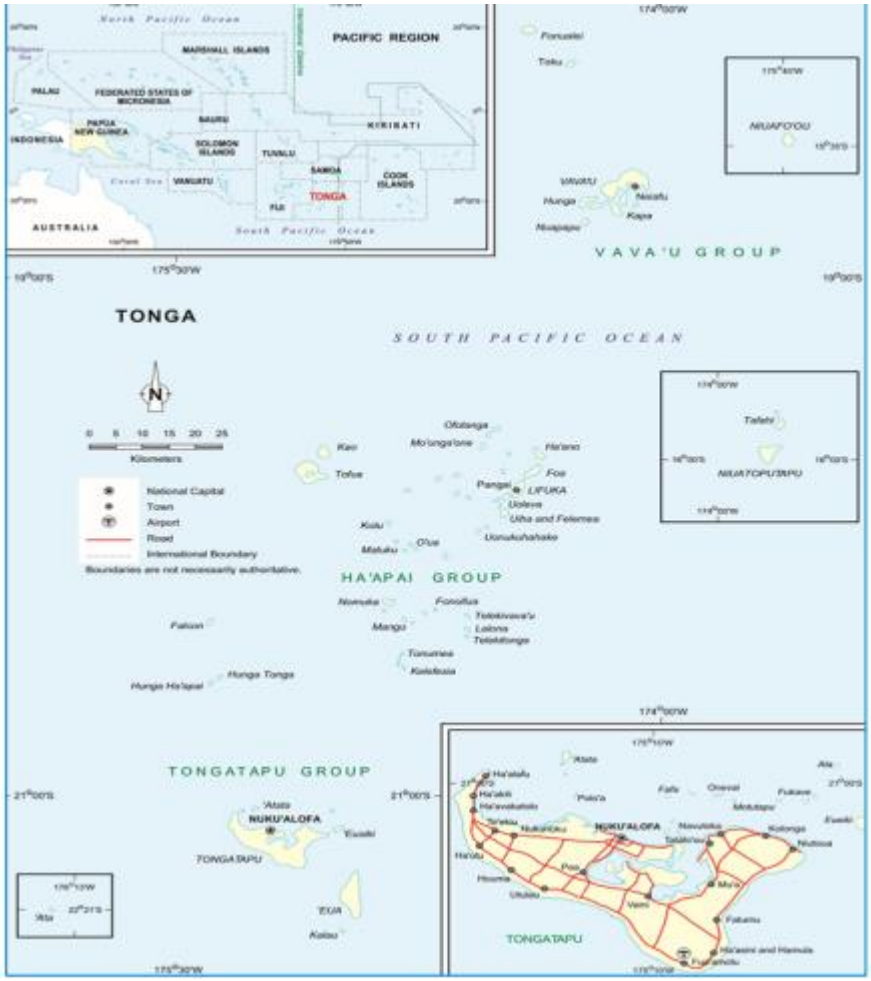

Figure 1 Map of the Tongan archipelago

25. There is significant diversity in the geology of the islands. The islands are formed on the tops of two parallel submarine ridges stretching from Southwest to Northeast and enclosing a 50-kilometre-wide trough – the world's second deepest trench, the 'Tonga Trench'.[18] Most of the islands in Tonga originate from coral line, and some islands are of volcanic origin. The majority of these islands are comparatively flat except for those raised by tectonic action. Coral polyps and foraminifera, marine organisms that have calcareous shells, which build coral rock and limestone reefs, have capped the low islands of the eastern chain. The continuing growth of coral counteracts the sea's erosion of the reefs and the islands they enclose. A protective reef surrounds Tongatapu Island. Many islands in the Vava'u Group lack such protection and are shrinking. In

[18] Raunek Kantharia, '10 Deepest Parts of the Ocean', *Marine Insight* (Web Page, 4 June 2023) <https://www.marineinsight.com/know-more/10-deepest-parts-of-the-ocean/>.

December 2014, new islands were formed approximately 67 kilometres northeast of Nuku'alofa, from underwater volcanic eruptions.

26. Tonga is situated at the subduction zone of the Indian-Australian and the Pacific tectonic plates and lies within the "*Ring of Fire*" where intense seismic activities occur. The "*Ring of Fire*" accounts for 75 percent of the world's volcanoes.[19]

27. The Pacific Plate is pushed west and sinks back into the mantle as it reaches the Indo-Australian plate and the Tonga Plate. Magma rising through the crust forms chains of volcanoes. The summit of these volcanic undersea mountains forms the two, roughly parallel, chains of Tongan islands. Most of the islands of the western chain are classified as high islands because they have been raised well above sea-level by repeated volcanic activity. Four of them remain active volcanoes.

28. Tonga has a tropical climate throughout the year reflecting its position within the southeast trade wind zone of the South Pacific. Tonga has only two seasons; the hot-wet season from November to April, and the dry season from May to October. The wettest months are January, February, and March with precipitation exceeding 250 millimetres of rainfall per month. Historical and observed climatic trends for Tonga include increase in temperature, rainfall, El Niño Southern Oscillation, sea-level rise, and tropical cyclones.[20] Ongoing seismic and volcanic activity, as well as the impact of tropical storms and storm surges and glacial melting mean that there is a high variability in sea-level over space and time.

Population demographics & domestic economy

29. Tonga's population is approximately 100,179 (2021) with 51 percent of the population being women and 49 percent men.[21] About 74 percent of the total population resides on the largest island of Tongatapu (at 260 kilometres), 14 percent of the population on Vava'u, six percent on the Ha'apai, five percent on 'Eua and one percent on the two

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19 S. George Philander, *Encyclopedia of Global Warming and Climate Change*, (SAGE Publications, 2nd ed, 2012) 1440.

20 'Tonga Current Climate > Climatology', *World Bank Group Climate Change Knowledge Portal For Development Practitioners and Policy Makers* (Web Page) <https://climateknowledgeportal.worldbank.org/country/tonga/climate-data-historical>.

21 'Kingdom of Tonga 2021 Population and Housing Factsheet', *Tonga Statistics Department* (Factsheet, 28 October 2022) <https://tongastats.gov.to/census-2/population-census-3/census-report-and-factsheet/ >.

Niuas.[22] An infographic of the distribution of Tonga's population by island division is illustrated in **Figure 2** below.

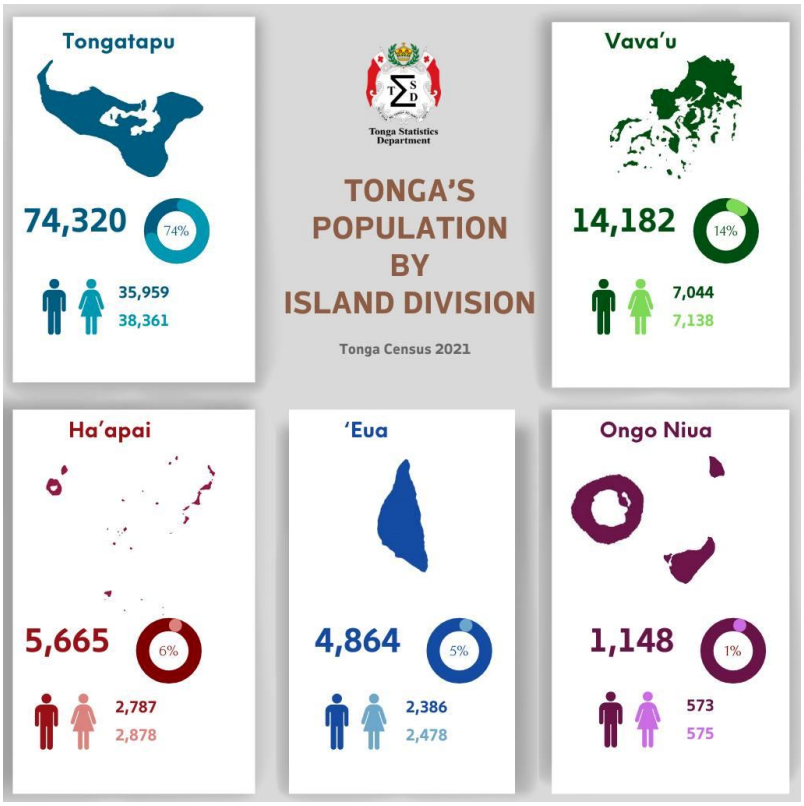

Figure 2 Infographic of Tonga's population by island division, from the Tonga Census 2021.

30. From an economic perspective, Tonga faces many of the common challenges of SIDS, including: i) dependence on a narrow range of exports; ii) high transportation costs due to its remote geography, small population size, and irregular international traffic volumes; iii) a dependence on strategic imports such as food and fuel; iv) an increased vulnerability to exogenous economic shocks, as well as a susceptibility to natural disasters and environment change due to the fragile land and marine ecosystems; v) the remoteness of international markets and a decline in global trade and investment; vi) a lack of readily available information for investors and trading partners; and vii) a limited capacity to harness growth opportunities.[23] These challenges make SIDS

[22] Ibid.

[23] Commonwealth Secretariat, 'Small States and the Commonwealth: Supporting Sustainable Development' (2017) (Web Page) <https://production-new-commonwealth-files.s3.eu-west-2.amazonaws.com/migrated/inline/Small%20States%20and%20the%20Commonwealth%202017.pdf>.

particularly vulnerable to biodiversity loss and climate change because they lack economic alternatives.

31. In 1970, Tonga's economic structure was not well developed. Its monetised sector consisted predominately of coconut and banana production. Eventually, the widening of trading partners and foreign development aid started to diversify the economy and state investment.[24]

32. Despite this, Tonga now enjoys a relatively strong position as a lower middle-income country, with a Gross Domestic Product (**GDP**) of USD 0.58 billion, a GDP per capita of USD 5,840, and a GDP growth rate (annual percentage change) of 2.5 percent.[25] Tonga's economy is highly dependent on climate sensitive sectors such as tourism, which accounted for 25 percent of GDP, prior to COVID and the Hunga Tonga–Hunga Ha'apai undersea volcano eruption; agriculture, which accounts for 16.2 percent of the GDP; and fisheries at 2.1 percent of the GDP.

33. Tonga has a limited resource base that is sensitive to external shocks.[26] The agricultural sector supports most of the population for subsistence and for cash income, employing a third of the labour force and accounting for at least 50 percent of the export earnings.[27] Over 40 percent of total land area is also used for agricultural purposes.[28] Tonga has a developing tourism industry (it is home to seven percent of the world's coral reefs and six percent of the world's sea mountains). Tourism is Tonga's second largest source of hard currency, following remittances.[29]

34. Geographic isolation and economic vulnerabilities, such as dependence on remittances and foreign aid and the impact of climate change on agricultural production, including the increased frequency and intensity of droughts and tropical cyclones, increase the

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24 Douglas A Scott and Christopher Browne, *Economic Development in Seven Pacific Island Countries* (International Monetary Fund, 1989) 140.

25 International Monetary Fund, 'Tonga: Datasets' *IMF Datamapper* (Web Page) <https://www.imf.org/external/datamapper/profile/TON>.

26 'National Accounts', *Tonga Statistics Department* (Web Page) <https://tongastats.gov.to/statistics/economics/national-accounts/>.

27 Kingdom of Tonga, *Third National Communication on Climate Change Report* (Report, December 2019) 87 (Web Page) <https://unfccc.int/sites/default/files/resource/Final%20TNC%20Report_December%202019.pdf> *("Third National Communication").*

28 'Tonga Climate Change Overview > Country Summary' *World Bank Group Climate Change Knowledge Portal For Development Practitioners and Policy Makers* (Web Page) <https://climateknowledgeportal.worldbank.org/country/tonga>.

29 'Tonga: Economic Outline', *Lloyds Bank* (Web Page, November 2023) <https://www.lloydsbanktrade.com/en/market-potential/tonga/economy>.

challenges communities and decision-makers face. Tonga is making sustained efforts to diversify its economy, including upgrading and extending key infrastructure systems like the international airport and wharf to accommodate larger aircraft and international ferries to boost tourism. Tonga has also prioritised education, and is the most educated Pacific nation, with Tongans having the highest rate of PhDs per capita in the world.[30] Yet, for now, the lack of diversified job opportunities in Tonga has led to increased migration abroad.

Exposure to extreme weather events & impact on economy

35. Tonga is at high risk from economic loss due to natural disasters and sustains an average of TOP 178 million (around USD 76.81 million) total annual loss due to disasters. This equates to 18.2 percent of Tonga's GDP.[31] Tonga is projected to need between USD 9 to USD 35 million in adaptation costs for coastal protection per year, which is approximately one to four percent of projected GDP by 2040.[32]

36. Recent examples of severe storms include Tropical Cyclone Ian (**Ian**), Tropical Cyclone Gita (**Gita**), and Tropical Cyclone Harold (**Harold**). In January 2014, Ian, a Category 5 severe tropical cyclone with winds of over 287 kilometres per hour, hit Tonga. It initially passed by Tonga's Vava'u islands (population 15,000) and the eye of the cyclone then passed over Ha'apai islands (population 6,600). There was one confirmed death, 14 injuries, and extensive damage to dwellings, infrastructure, and agriculture. Over 50 percent of the 1,130 affected buildings in Ha'apai were destroyed, with 34 percent of those left standing suffering major damage. Around 2,335 people sought shelter in 51 formal and informal shelters. A state of emergency was declared on the day. The total financial impact of Ian, including immediate, recovery and initial reconstruction needs, is estimated at TOP 90.2 million (around USD 40 million).[33]

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30 Ki He Lelei Taha, 'Talanoa Mei He Kaliloa of Successful Tongan Graduates' (Thesis, University of Auckland, 2014) 167.

31 United Nations, Economic and Social Commission for Asia and the Pacifc (ESCAP), *The Disaster Riskscape across the Pacific Small Island Developing States: Key Takeaways for Stakeholders* (Report, 2020) 3.

32 The World Bank, *Climate Change and Disaster Management Pacific Possible Background Paper No. 6.* ('*Climate Change and Disaster Management Pacific Possible Background Paper*') (Report, 2017) 5.

33 'Tropical Cyclone Ian – Jan 2014', *ReliefWeb OCHA* (Web Page, 11 December 2021) <https://reliefweb.int/disaster/tc-2014-000003-ton>.

37. In 2018, Gita, a Category 4 tropical cyclone with winds of more than 275 kilometres per hour, ravaged the Pacific. It was the most severe storm in the region in 60 years. Tonga was the most affected country, with the main island of Tongatapu and nearby 'Eua bearing the brunt of the storm. Gita destroyed Tonga's 100-year-old Parliament House, destroyed more than 800 homes and damaged an additional 4,000. The Parliament House is yet to be reconstructed more than five years after Gita. As Mr Semisi Tongia of the Ministry of Tourism notes in his witness statement (see **Annex 2**), the "*destruction of the Parliament building represents… the loss of a place of cultural significance*" and "*impacts both the people of Tonga and also tourists who can no longer visit*" the building.[34]

38. Gita left more than 80 percent of homes in Tonga without power.[35] All seven community health centres on Tongatapu lost electricity and most lost access to safe water.[36] Gita also destroyed fruit trees and crops vital to Tonga's livelihood. The total financial impact of Gita, including immediate, recovery and initial reconstruction needs, is estimated at more than TOP 350 million (around USD 150 million).[37]

39. In 2020, Harold, a Category 4 cyclone, entered Tongan waters at full capacity with sustained winds of more than 150 kilometres per hour. The cyclone produced a massive storm surge which coincided with a king tide, causing extensive flooding on the main island of Tongatapu as well as the 'Eua group of islands. It is estimated that 27 percent of the population was severely impacted. Impacts included damage to dwellings as well as difficulty in access to clean water, sanitation, and hygiene. Heavy damage to public infrastructure, particularly wharves, coastal roads, and power supply were also recorded. Harold caused damages and losses of around USD 111 million, or around 25 percent of Tonga's GDP.[38] The impact on food security and livelihoods as a result of loss of household food stores, damage to root crops and fruit trees was again

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34 Semisi Tongia, Witness Statement (13 March 2024), Annex 2 [8].

35 'Tropical Cyclone Gita', *ReliefWeb OCHA* (Web Page, 5 April 2018) < https://reliefweb.int/report/tonga/tropical-cyclone-gita>.

36 'Tropical Cyclone Gita', *World Health Organisation* (Web Page, 27 February 2018) <https://www.who.int/westernpacific/emergencies/tropical-cyclone-gita>.

37 Kingdom of Tonga, *Disaster Recovery Framework for Tropical Cyclone Gita* (Disaster Recovery Framework, October 2018), 11 <https://documents1.worldbank.org/curated/en/286931584942481482/pdf/Tonga-Disaster-Recovery-Framework-for-Tropical-Cyclone-Gita.pdf>.

38 'Cyclone Harold said to cost Tonga more than $US11m', *Radio New Zealand* (Interview with Tonga's finance minister, Tevita Lavemaau) (Web Page, 24 April 2020) <https://www.rnz.co.nz/international/pacific-news/415062/cyclone-harold-said-to-cost-tonga-more-than-us111m>.

significant.[39] The economic impacts have been felt long term as Tonga's economy is very dependent on tourism, and a significant portion of the country's beachside resorts were destroyed.

40. On 15 January 2022, the Hunga Tonga–Hunga Ha'apai undersea volcano, located about 65 km north of the capital of Nuku'alofa, erupted (**Eruption**). The Eruption lasted eight minutes, throwing a mixture of ash, gas, and steam more than 20 kilometres into the air, covering Tonga in thick volcanic ash. The Eruption generated a devastating tsunami. Significant flooding led to extensive damage in Tonga, with impacts felt in Samoa, Fiji, Vanuatu, Australia, New Zealand, Japan, as well as the western seaboard of the American continent. In Peru, massive waves originating 10,000 kilometres away rolled across the Pacific causing an ecological disaster as 6,000 barrels of oil spilled during the offloading of a tanker at a refinery north of Lima.[40] The World Bank has stated that it was the most explosive volcanic event in the world in the last 30 years.[41]

41. In Tonga, a country-wide State of Emergency was declared. There were three direct fatalities as a result of the Eruption and tsunami, and one indirect. Around 85 percent of the Tongan population was directly affected, with widespread damage to vital infrastructure, including houses, schools, roads, communications, power, and water supply networks.[42] Mango, Fonoifua, and Nomuka islands and the small islands of 'Atata into Tongatapu were all evacuated. People were resettled to the main island. All homes on Mango Island were destroyed.

42. The Eruption and tsunami caused an estimated TOP 421 million (around USD 182 million) worth of damage, equivalent to 36.4 percent of Tonga's GDP.[43] The tourism industry, Tonga's second source of hard currency, ceased overnight, as did most

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39 Kingdom of Tonga, Ministry of Finance, 'Tropical Cyclone Harold Emergency Response Project: Audited Project Financial Statements (July – November 2020)', *Audited Project Financial Statements October 2021* (Web Page, 12 October 2021) <https://www.adb.org/projects/documents/ton-54238-001-apfs>.

40 Dan Collyns, 'Peru demands compensation for disastrous oil spill caused by Tonga volcano', *The Guardian* (Web Page, 20 January 2022) <https://www.theguardian.com/world/2022/jan/19/peru-spain-repsol-disastrous-oil-spill>.

41 'Additional $20 million for Disaster Recovery and Economic Reform in Tonga', *The World Bank* (Press Release No: 2022/112/EAP, 15 June 2022) <https://www.worldbank.org/en/news/press-release/2022/06/15/additional-20-million-for-disaster-recovery-and-economic-reform-in-tonga>.

42 Ibid.

43 Shohei Nakamura and Utz Pape, 'Uncovering the untold impact of the 2022 Tonga volcano and tsunami: How phone surveys reveal crucial insights', *World Bank Blogs* (Blog Post, 23 March 2023) <https://blogs.worldbank.org/eastasiapacific/uncovering-untold-impact-2022-tonga-volcano-and-tsunami-how-phone-surveys-reveal>.

agriculture. The fisheries and aquaculture sector suffered losses equivalent to 72 percent of the fishery value in GDP.[44] There was massive supply chain disruption, and Tonga was without communications network for over three days.

43. The evidence of witnesses provided at **Annex 2** to this submission is unequivocal on the devastating impacts of the Eruption and tsunami:

43.1 Mr 'Etimoni Palu, a business owner and fisherman on the main island of Tongatapu, has seen a significant decline in the profitability of his local business due to the devastating effects of the tsunami which damaged a third of his boats. As a result of the damage, he has had to reduce his workforce by approximately 25 percent;[45]

43.2 Mr Semisi Tongia and Mr Pulotu Ma'u, both of the Ministry of Tourism, describe the impact of the tsunami on many coastal settlements in Tonga which were "*wiped out completely*". Mr Semisi Tongia recalls that "*[t]here communities had to be entirely relocated*";[46] and

43.3 Mr Patelisio Fe'ao, a teacher in the outer islands of Ha'apai, recalls that the waves from the tsunami *"came all the way up and into the school building"*, causing damage to the school building,[47] and has left a lasting impact on the local community who live with the fear of a similarly devastating event occurring.[48]

44. The Eruption and tsunami further compounded the social and economic effects of Harold (2020), Gita (2018), and Ian (2014). Tonga was also hit with its first COVID-19 outbreak immediately after the eruption, further challenging Tonga's resilience.

45. Much of Tonga's housing and infrastructure remains destroyed following these severe weather events. Given Tonga's limited GDP, family homes, critical State

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44 Food and Agriculture Organization of the United Nations, *Tonga Hunga Tonga-Hunga Ha'apai eruption and tsunami 2022 Damage and loss in the fisheries and aquaculture sector* (DIEM-Impact Report, November 2022) 8.

45 'Etimoni Palu, Witness Statement (13 March 2024) Annex 2, [6].

46 Semisi Tongia (n 34) [12]; Pulotu Ma'u, Witness Statement (13 March 2024) Annex 2, [8].

47 Patelisio Fe'ao, Witness Statement (15 March 2024) Annex 2, [9].

48 Ibid [14].

infrastructure, and buildings necessary for generating revenue for Tonga (such as resorts) remain destroyed or partially reconstructed. The Government of Tonga has expended a significant portion of its GDP in reconstruction efforts, however, without international assistance the physical scars of these climate change-induced weather events will remain.

CHAPTER IV. THE EFFECTS OF ANTHROPOGENIC GREENHOUSE GAS EMISSIONS ON TONGA

46. This Chapter examines the impacts of the continued increase in anthropogenic greenhouse gas emissions on Tonga, and the steps that Tonga is taking to mitigate and adapt.

47. The Intergovernmental Panel on Climate Change (**IPCC**), makes it clear that a *"sense of urgency is prevalent among small islands in the combating of climate change and in adherence to the Paris Agreement to limit global warming to 1.5°C above pre-industrial levels".*[49] It also warns:

> *"The reduced habitability of small islands is an overarching significant risk caused by a combination of several key risks facing most small islands even under a global temperature scenario of 1.5°C (high confidence)*".[50]
>
> "*The vulnerability of communities in small islands, especially those relying on coral reef systems for livelihoods, may exceed adaptation limits well before 2100 even for a low greenhouse gas emission pathway (high confidence)*".[51]

48. Although Tonga makes a negligible contribution to global greenhouse gas emissions, there is no doubt that climate change is already affecting Tonga's development and the livelihood of its people and future.[52] The impact of climate change-induced phenomena such as sea-level rise, ocean acidification, temperature rise, and increased intensity of cyclones continue to pose a threat to the people of Tonga, Tongan society, livelihoods, and the natural environment. Irreversible loss and damage from extreme weather events

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49 Intergovernmental Panel on Climate Change, 'Small Islands' in *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2022) 2043–2121, 2045.

50 Ibid 2046.

51 Ibid.

52 Intergovernmental Panel on Climate Change, 'Summary for Policymakers' in *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC, 2023) 1-34, 5 [A.1.5]. This report identifies that LDCs and SIDS have much lower per capita emissions (1.7 tCO_2-eq and 4.6 tCO_2-eq, respectively) than the global average (6.9 tCO_2-eq), excluding CO_2 from land use, land-use change and forestry.

and coastal erosions are putting the Government's poverty alleviation commitments and national development objectives at risk.

49. On the highest emissions pathway (RCP8.5) warming of around 4.4 °C is projected by the end of the century.[53] Potential threats to human well-being and natural ecosystems include increased prevalence of heat waves, intensified cyclones, saline intrusion, wave-driven flooding, and permanent inundation.[54] These impacts threaten the state of natural resources in Tonga such as water, forestry, and biodiversity. Climate change impacts are multi-sectoral, affecting sectors such as agriculture, fisheries, tourism, and health. Tonga's population already lives in a dynamic ecosystem, to which it has adapted. However, climate change is likely to increase variability, pose new threats, and place stress on the people of Tonga and their livelihoods.

50. Available data demonstrates that the continued increase in anthropogenic greenhouse gas emissions will impact Tonga in five major ways:

    50.1 *first*, as a SIDS, Tonga is particularly vulnerable to the adverse effects of climate change, especially where Tonga lacks the necessary resources to monitor the impacts of climate change on its ecosystems;

    50.2 *second*, anthropogenic climate change has affected Tonga's weather patterns including annual temperatures, occurrence of droughts, and increased risk of natural disasters;

    50.3 *third*, Tonga has experienced ocean acidification, coral bleaching, sea-level rise, and saltwater intrusion resulting from anthropogenic climate change;

    50.4 *fourth*, Tonga's agriculture sector is fundamental to its economy and anthropogenic climate change threatens its longevity;

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53 Ibid 12 [B.1.1].

54 The World Bank, 'World Bank Country Risk Profile, Tonga' (Report, 2021) <https://climateknowledgeportal.worldbank.org/sites/default/files/country-profiles/15823-WB_Tonga%20Country%20Profile-WEB.pdf>. "*Climate Risk Country Profile"*

50.5 *fifth*, anthropogenic climate change threatens to sever the Tongan people's cultural connection with the islands including for future generations.

51. This Chapter will also outline how Tonga has been proactive in addressing the adverse effects of climate change at domestic, regional, and international levels.

52. **Annex 1** to this written statement includes an expert report prepared by Johanna Gusman, M.Sc, J.D. of the Pacific Community (**SPC**). The report provides detail on the adverse effects of climate change that Tonga has experienced and is experiencing. As such, this Chapter will provide a high-level overview of the main adverse effects on Tonga, however, Tonga asks the Court to consider the more detailed expert report to fully appreciate the extent of these effects on Tonga.[55]

A. As a SIDS, Tonga is particularly vulnerable to the adverse effects of climate change especially where Tonga lacks the necessary resources to monitor the impacts of climate change on its ecosystems

53. The IPCC notes the clear vulnerability of SIDS, and underlines the importance of investment in capacity building, adaptation and resilience:

> *"Scientific studies … confirm that global temperature will continue to increase even if greenhouse gas emissions are drastically reduced and will escalate the vulnerability, impacts and multiple interrelated risks experienced by small islands (high confidence)".*[56]
>
> "*Small islands present the most urgent need for investment in capacity building and adaptation strategies (high confidence) but face barriers and constraints which hinder the implementation of adaptation responses*".[57]
>
> *"The unavailability of up-to-date baseline data and contrasting scenarios/temperature levels continue to impair the generation of local-to-regional observed and projected impacts for small islands, especially those that are developing nations (high agreement)."*[58]

[55] See at Annex 1, The Pacific Community (SPC), Expert Report for Tonga (compilation and authorship by Johanna Gusman, M.SC, J.D) Mar 12, 2024

[56] Intergovernmental Panel on Climate Change (n 49) 2048.

[57] Intergovernmental Panel on Climate Change (n 49) 2047.

[58] Intergovernmental Panel on Climate Change (n 49) 2047.

> *"Although international climate finance has increased in magnitude, small islands face challenges in accessing adaptation finance to cope with slow- and rapid-onset events (high confidence)*".[59]

54. These comments reiterate the findings of the IPCC's Special Report on Global Warming of 1.5 °C, which identified with high confidence that at levels of global warming of 1.5 °C and beyond, SIDS face disproportionately high climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth.[60]

55. Despite this high vulnerability to climate change, SIDS lack the physical, financial, and technical ability to effectively adapt to, mitigate, and monitor the consequences of climate change. Especially for SIDS, reliable model projections are lacking, compounding challenges for decision makers. These challenges further entrench the risks that SIDS face from climate change.

56. Climate change is also expected to exacerbate existing negative socio-economic conditions. As global warming increases, poverty and disadvantage are expected to increase.[61] Increasing weather and climate-induced events have already exposed millions of people to acute food and water insecurity, with SIDS observed to be among those States most impacted.[62]

57. The International Monetary Fund (**IMF**) has also recognised that:

> "*Tonga needs to close the large financing gap between its climate plans and identified financing, which should be through grants to avoid worsening debt dynamics. Access to climate finance has been reasonable, but international climate funds are difficult for Tonga to access. Limited capacity constrains access to financing and disbursement*".[63]

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59 Ibid.

60 Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* (Cambridge university Press, 2019) 9 [B.5.1].

61 Ibid.

62 Intergovernmental Panel on Climate Change, 'Summary for Policymakers' in *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II tot eh Sixth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2022) 9 [B.1.3]

63 International Monetary Fund, *Tonga Technical Assistance Report – Climate Change Policy Assessment* (Country Report) No 20/212 (30 June 2020) 40.

58. The people of Tonga need financial support, data, and technology transfer to understand the changes to the climate, and to adapt and manage climate change and disaster risks facing their wellbeing, livelihoods, and infrastructure.

59. As a SIDS, Tonga must balance ensuring the availability of financial, technical, and human resources to deliver essential services to its people, and the need to use those same resources to comply with its obligations under international law.

60. Like many SIDS, Tonga faces the present and future challenges of climate change alongside equally complex and immediate domestic challenges. International cooperation in the preservation and maintenance of global climate systems, as well as related data and knowledge-sharing, will significantly affect the way in which climate change impacts Tonga, and the effectiveness of its response.

B. Anthropogenic climate change has affected Tonga's weather patterns including annual temperatures, occurrence of droughts, and increased risk of natural disasters

Temperature variability

61. The IPCC notes that small islands are already experiencing the impacts of temperature change:

> *"… Small islands are increasingly affected by increases in temperature… which are already detectable across both natural and human systems (very high confidence)".*[64]

62. Tonga has observed varying air temperatures across the island groups. However, there are general warming trends across all meteorological stations in Tonga. Between 1979 and 2018, Tonga experienced warming of around 0.4 °C – 0.6 °C.[65] Tonga also regularly experiences high temperatures with mean annual temperatures at around 24.5 °C, and the highest temperatures in January and March reaching a seasonal average of 26.38 °C.[66]

64 Intergovernmental Panel on Climate Change (n 49) 2045.

65 *Climate Risk Country Profile* (n 54) 2.

66 Ibid 11.

63. There is 'very high confidence' that temperatures in Tonga will rise, although at a rate slightly lower than the global average.[67] Under all emissions scenarios, temperatures are projected to increase by 1 °C in 2030.[68] The average of 26 climate models project that the 1-in-20-year maximum temperature for Nuku'alofa, Tongatapu will increase by 1.4 °C by 2050,[69] although some climate models project a greater rise of over 2 °C.[70] On the highest emissions pathway (RCP8.5) warming of around 2.6 °C is projected by the 2090s.[71] This is in comparison to the global annual air surface temperature which is projected to be 3.7 °C warmer.

64. Due to climate variability, there will still be relatively warm and cool years and decades, although projections suggest that the intensity and frequency of extremely hot days are likely to increase into the future.[72] This is physically consistent with rising greenhouse gas emissions. Also, all CMIP3 models agree on the direction of change for both intensity and frequency.[73] More frequent and intense heatwaves pose potential threats for human well-being, and for the natural ecosystems.

Occurrence of droughts

65. The IPCC notes that:

> *"… Small islands are increasingly affected by … droughts, changing precipitation patterns, sea level rise … all of which are already detectable across both natural and human systems (very high confidence)".*[74]

66. Tonga also experiences droughts, particularly during the El Niño period. The most intense droughts in Tonga have also occurred during the El Niño years of 1982-83, 1997-98, 2014, 2015, and 2016.[75] From these occurrences, Tonga's agricultural yield and water supply have been greatly impacted. These severe droughts of 1983, 1998,

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67 Ibid 9.

68 Intergovernmental Panel on Climate Change (n 52) 12.

69 *Climate Risk Country Profile* (n 54) 8.

70 Government of Tonga, 'Tonga LEDS: Low Emission Development Strategy 2021-2050' (Web Page) 97 <https://unfccc.int/sites/default/files/resource/TON_LTS_Nov2021.pdf> ('*Tonga LEDS*').

71 *Climate Risk Country Profile* (n 54) 8.

72 Ibid 10.

73 Phase 3 of the Coupled Model Inter-comparison project (CMIP3) of the World Climate Research Programme (WCRP) Working Group on Coupled Modelling (Web Page) < https://wcrp-cmip.org/cmip-phase-3-cmip3/>

74 Intergovernmental Panel on Climate Change (n 49) 2045.

75 *Climate Risk Country Profile* (n 5465) 5; *Tonga LEDS* (n 70) 52.

2006, and 2014 resulted in reduced harvesting of Tonga's annual crops such as squash, vegetables, yams, sweet potatoes, and root crops.[76] The number of fruit trees and the fruits yielded were also smaller in size.[77]

67. The availability of groundwater is also vital to Tonga's economy. Groundwater levels fluctuate with rainfall and is at its lowest during prolonged drought. When there is low rainfall for extended periods, coupled with the unique hydrogeology of coral islands, and the continued erosion of freshwater lenses, this can severely limit freshwater availability.[78] During the 1982-83 and 1997-98 drought period, water shortage was so evident that water had to be distributed to the outer islands. In the 1998 drought period, the Tongan government spent TOP$200,000 (USD$85,000) to enable the transportation of water by sea to Ha'apai.[79]

Increased extreme weather events and natural disasters

68. The IPCC makes it clear that the multiplication of extreme weather events is already a reality for small islands states:

> "[Tropical Cyclones (**TC**)] *are severely impacting small islands (high confidence). TC intensity and intensification rates at a global scale have increased in the past 40 years with intensity trends generally remaining positive. Intense TCs including Categories 4 and 5 TCs have threatened human life and destroyed buildings and infrastructural assets in small islands in the Caribbean and the Pacific…. Coast-focused tourism is already extremely impacted by more intense TCs*".[80]
>
> *"… Coastal cities and rural communities on small islands have been already impacted by [Sea Level Rise], heavy precipitation events, tropical cyclones and storm surges. Climate change is also affecting settlements and infrastructure, health and well-being, water and food security, and economies and culture, especially through compound events (high confidence). As of 2017, an estimated 22 million people in the Caribbean live below 6-m elevation and 50% of the Pacific's population lives within 10 km of the coast along with ≥50% of their infrastructure concentrated within 500 m of the coast".* [81] (emphasis added).

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76 *Tonga LEDS* (n 70) 52.

77 *Climate Risk Country Profile* (n 54) 19.

78 Ibid 14.

79 *Third National Communication* (n 27) 19. See also: Latiume Kaufusi, Witness Statement (15 March 2024) Annex 2, [15].

80 Intergovernmental Panel on Climate Change (n 49) 2045.

81 Ibid.

69. Tonga is one of the world's most exposed countries to climate change and natural disasters. It suffered the highest loss from natural disasters in the world (as a ratio to GDP) in 2018 and is among the top five over the last decade.[82]

70. On average, Nuku'alofa experiences 17 tropical cyclones per decade (see Graph 1 and Graph 2 in **Annex I**), with the most occurring between November and April – Tonga's wet season.[83] The high interannual variability in the tropical cyclone numbers makes it difficult to identify long-term trends in frequency. Regardless, global evidence shows that the economic damage caused by cyclones is long-lasting and cumulative. For example, Gita, a Category 4 cyclone that hit Tonga in February 2018, caused widespread damage to basic public infrastructure, livelihoods, and living facilities, many of which are still under reconstruction and recovery to this day.[84]

71. Ha'apai and Tongatapu both experienced multiple Category 4 (and above) cyclones within the past 10 years, with increasing impacts from storm surges.[85] These direct impacts to communities not only damage infrastructure and increase risks to safety, but also weaken the health of marine habitats and marine resources, thereby threatening the food security of families living in coastal areas, reducing their resilience.

72. Extreme weather events, including cyclones, flooding, and tsunamis also pose acute physical risks to Tongan people and their infrastructure. Research has found a correlation between glacial-load change on the Earth's crust and the occurrence of volcanic activity.[86] The growing frequency of climate change–related hazards such as wildfires, floods, landslides, and drought increase the chances that they will coincide in space and time with volcanic eruptions, further undermining the ability to respond in a resource constrained environment.

73. SIDS and developing States face additional challenges in implementing adaptation measures. Resource constrained environments force governments to decide between

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82 International Monetary Fund (n 63) 12.

83 *Third National Communication* (n 2779) 77.

84 Further detail on recent tropical cyclones and natural disasters to impact Tonga is set out at **paragraphs 36 to 44.**

85 See for example, The World Bank, 'Tonga: Survivors Get Back on Their Feet after Tropical Cyclone Ian' (Web Page, 17 December 2014) <https://www.worldbank.org/en/news/feature/2014/12/17/tonga-survivors-get-back-on-their-feet-after-tropical-cyclone-ian>; World Health Organisation (n 37).

86 Graeme T. Swindles et al, 'Climatic control on Icelandic volcanic activity during the mid-Holocene' (2017) 46(1) Geology 47-50.

addressing the current needs of the population and adapting to the future risks of adverse climate impacts. This is compounded by a lack of data, and human and technical resources to conduct accurate forecasting.

C. Tonga has experienced ocean acidification, coral bleaching, sea-level rise, and saltwater intrusion resulting from anthropogenic climate change

Ocean acidification

74. The IPCC's Sixth Assessment Report notes that:

> "*Ocean acidification and deoxygenation, increased ocean temperatures and relative [sea level rise] are impacting marine, coastal and terrestrial biodiversity and ecosystem services, making settlements more exposed and vulnerable to climate-related hazards*". [87]

> "*Impacts of climate change on fisheries in small islands result from ocean temperature change, [sea level rise], extreme weather patterns such as cyclones, reducing ocean oxygen concentrations and ocean acidification*".[88]

75. Since the 18th century, the level of acidity in Tonga's waters has been increasing. Seawater acidity is measured using pH, a numeric scale to specify the acidity or basicity of a solution. The pH of global oceans ranges from around 7.5 to 8.4. Tonga's waters are at the higher end of this range, with pH between 8.25 and 8.29. This has been attributed to both anthropogenic and climate change induced events.

76. It is projected that ocean acidification is likely to affect the entire marine ecosystem, specifically affecting key ecosystem services provided by reefs.[89] Ocean acidification, which is driven by anthropogenic carbon dioxide emissions, have also proven to slow the growth of coral skeletons and may, in the future, significantly affect the growth of reefs at a larger scale.[90] This would have significant impacts on Tonga's tourism industry.

77. The fisheries sector in Tonga is a contributor to the national economy and has been developing over recent years. The IPCC notes that "*some small island countries and territories are projected to experience more than 50% declines in fishery catches by*

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87 Intergovernmental Panel on Climate Change (n 49) 2063.

88 Intergovernmental Panel on Climate Change (n 49) 2099.

89 The World Bank, *Turn Down the Heat: Why a 4C Warmer World Must be Avoided* (Report, 2012) 11 <https://documents1.worldbank.org/curated/en/865571468149107611/pdf/NonAsciiFileName0.pdf>

90 Charlotte Moritz et al, Status and Trends of Coral Reefs of the Pacific (Report, 2018) 23.

2100".[91] Despite limited data and research on the impacts of climate change on the local fisheries product, it is likely that warmer global temperatures, coral bleaching, and ocean acidification may play a central role in the potential availability of reef associated fish.

78. The effects of ocean acidification and increased sea surface temperature on coral reefs can be expected to affect catch per unit effort at locations from where it is cost-effective to send fish to the urban markets, reducing the supply of reef fish and affecting the viability of small-scale fisheries based on reef-associated species. As populations grow and reefs degrade, greater reliance will need to be placed on other sources of fish.

79. Ocean acidification also affects levels of krill, a key source of food for humpback whales. Tonga is historically a breeding ground for humpback whales. These whales are recovering from near extinction; however, decreased food levels and warmer sea temperatures could force them to migrate away from Tonga's oceans. This would have significant impacts on Tonga's tourism industry as many tourists come to Tonga to experience a unique opportunity to swim with these whales.

Coral bleaching

80. The IPCC's Sixth Assessment Report indicates there is a key risk of coral bleaching and reef decline in the Pacific:

> "*Scientific evidence has confirmed that globally and in small islands tropical corals are presently at high risk (high confidence). Severe coral bleaching, together with declines in coral abundance, has been observed in many small islands, especially those in the Pacific and Indian oceans (high confidence). In the Pacific, median return time between two severe bleaching events has diminished steadily since 1980. The return time is now 6 years and often associated with the warm phase of El Niño–Southern Oscillation (ENSO) events (high confidence)*".[92]
>
> *"Modelling of both temperature and ocean acidification effects under future climate scenarios (RCP4.5 and RCP8.5) suggest that some small islands will experience severe coral bleaching on an annual basis before 2040 (medium confidence). Above 1.5°C, globally inclusive of small islands, it is projected there will be further loss of 70–90% of reef-building corals, with 99% of corals*

[91] Intergovernmental Panel on Climate Change (n 49) 2100.

[92] Intergovernmental Panel on Climate Change (n 49) 2045.

being lost under warming of 2°C or more above the pre-industrial period … (high confidence)".[93]

81. Corals are sensitive to changes in sea temperatures. When ocean temperatures are more than 1-2 °C greater than the normal maximum temperature, severe coral bleaching ensues. Coral bleaching is a stress response which breaks the zooxanthellae-coral symbiotic relationship and may result in coral mortality depending on the intensity and duration of the warming event.

82. Coral bleaching is a silent killer with its effects on Tonga's reefs exacerbated by increasing sea surface temperatures and the severity of tropical cyclones. In 2000, a large coral bleaching event was recorded in Tonga, with significant coral bleaching in Tongatapu and Ha'apai.[94] Observations from the Ha'atafu Reserve in the main island of Tongatapu revealed that the coral bleaching was widely evident on the reef slope and the lagoon. This area is dominated by species such as Montipora hispida, with M.incrassata subdominant. Other coral species such as Goniastrea retiforms, Platygyra sinensis and P.daedalea were around 80-100 percent bleached.[95]

83. Bleaching events in Tonga are projected to increase in the future. There is a strong association between a decline in coral cover and progressively rising sea temperatures associated with climate change. The land and the ocean are interconnected. Research has suggested that the risk of large-scale flooding and inundation will depend on the success of coral conservation.[96] Many tourists come to Tonga to snorkel and scuba dive. Given Tonga's economic reliance on tourism (see **paragraph 33** above), this will place further stress on Tonga's economy.

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93 Intergovernmental Panel on Climate Change (n 49) 2045.

94 Philipp Gassner et al, Marine Atlas, Maximizing Benefits for Tonga (Report, 2019) 63 < https://macbio-pacific.info/Resources/tonga-interactive-marine-atlas/>.

95 Edward Lovell and Asipeli Palaki, 'National coral reef status report Tonga' (Report, 2002) 317 *Coral reefs in the Pacific: Status and monitoring, Resources and management* 331 <https://www.sprep.org/att/IRC/eCOPIES/Countries/Tonga/5.pdf>.

96 *Climate Risk Country Profile* (n 54).

Sea-level rise and permanent inundation of land

84. The IPCC's Sixth Assessment Report notes that "c*oastal cities and rural communities on small islands have been already impacted by [sea level rise]*",[97] and predicts that:

> "*Changes in wave climate superimposed on* [sea-level rise] *will significantly increase coastal flooding (high confidence) and low-coastal and reef island erosion (limited evidence, medium agreement). The frequency, extent, duration and consequences of coastal flooding will significantly increase from 2050 (high confidence) … These changes are a major concern for small islands given that a high percentage of their population, infrastructure and economic assets are located in the low-elevation coastal zone of below 10-m elevation*".[98]

85. The consequences of sustained sea-level rise are anticipated to be wide-ranging and severe, especially for SIDS. In the IPCC's *Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*, it is noted that SIDS:

> "*… are particularly vulnerable to rising sea levels and impacts such as erosion, inundation, shoreline change, and saltwater intrusion into coastal aquifers. These impacts can result in ecosystem disruption, decreased agricultural productivity, changes in disease patterns, economic losses such as in tourism industries, and population displacement – all of which reinforce vulnerability to extreme weather events*".[99]

86. As noted in many of the witness statements annexed to this submission (see **Annex 2**), the majority of people in Tonga live in coastal villages and settlements.[100] Tongan people have lived on the coast for generations and, as a result, this is where the critical infrastructure and resources are that people require in their day-to-day lives. Further, coastal living is part of the Tongan way of life and intrinsic to Tongan culture (see **Part E** of this Chapter).

87. Tonga was ranked as the third most at-risk country for natural hazards and sea-level rise in the 2021 World Risk Report.[101] According to national studies, past projections

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97 Intergovernmental Panel on Climate Change (n 49) 2045.

98 Intergovernmental Panel on Climate Change (n 49) 2045.

105 Intergovernmental Panel on Climate Change, *Managing the Crisjs of Extreme Events and Disasters to Advance Climate Change Adaptation*. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (Cambridge University Press, 2012) 18.

100 See, for example: Semisi Tongia (n 34) [9]; Latiume Kaufusi (n 79) [5].

101 Dr. Mariya Aleksandrova et al, *WorldRiskReport 2021* (Report, 2021) 7 <https://weltrisikobericht.de/wp-content/uploads/2021/09/WorldRiskReport_2021_Online.pdf.>.

show that from January 1993 to December 2015, the monthly mean sea-level recorded at Nuku'alofa had risen by about 7 millimetres per year.[102] This was larger than the global average of 2.8-3.6 millimetres per year. A case study of the island group of Ha'apai, particularly the capital of Lifuka, showed the coastline receding since 1968 until 2011 with an estimation of 1.3 meters per year.[103]

88. Rising sea-levels have wide reaching impacts, causing loss and damage to Tonga's agricultural lands, and land on the coastal areas of Tonga. This has subsequent impacts on water supply and quality, indigenous biodiversity, and coastal infrastructure, illustrating the multi-sectoral impacts of sea-level rise.[104] A vulnerability assessment conducted in 1997[105] found that 58 kilometres of the main island of Tongatapu would be inundated if the sea-levels rose to one meter. Areas up to five meters above sea-level will be affected which is around 14 percent of the total land area of Tongatapu. Nuku'alofa has a significantly lower elevation, and it stands at risk of breaking into islands. Even Vava'u, with a higher elevation than Tongatapu, still faces risks of runoff into the marine areas, thereby impacting marine ecosystems and possibly damaging roads and other infrastructure.

89. The impacts of sea-level rise are further compounded by other factors such as natural disasters. As tropical cyclones are predicted to intensify (see **paragraph 68** above), and coupled with rising sea-levels, this may cause significant inundation of lowlands, damaging coastal infrastructure and property and affecting livelihoods.[106] An example is the Sopu wetlands, containing mangroves and other marine biodiversity. At present, the risks of inundation due to sea-level rise are projected to remain relatively low until 2050. The presence of wetlands currently dampens the tidal range to around 30 centimetres. This lessens the magnitude of tidal heights and reduces coastal inundation from extreme high tides. However, future predictions are highly confident that sea-levels will continue to rise under all emissions scenarios. By 2030, under a high

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102 *Tonga LEDS* (n 70) 97.

103 Kingdom of Tonga Ministry of Metereology, Energy, Information, Disaster Management, Environment, Climate Change and Communication, 'Tonga GCF Readiness and Preparatory Support Programme', *Tonga – Green Climate Fund Country Programme* (Report, 2018) 12 < https://climatechange.gov.to/wp-content/uploads/2020/07/Tonga-GCF-Country-Programme.pdf>.

104 Ibid 9.

105 Nobuo Mimura and Netatua Pelesikoti, 'Vulnerability of Tonga to Future Sea-Level Rise' (1997) *Journal of Coastal* Research 1.

106 Gassner (n 94) 59.

emissions scenario, sea-levels are projected to rise to the range of three to 17 centimetres annually. For the Sopu wetlands, their dampening effect will eventually diminish and most of the low-lying areas of Nuku'alofa will be at risk of inundation.[107]

90. Tonga faces a potential long-term threat from permanent inundation and wave-driven flooding. Studies have suggested that significant displacement of communities could take place.[108] This would further compound the economic costs of these disasters set out in **paragraph 35** above.

Saltwater intrusion

91. The IPCC notes that "*freshwater systems on small islands are exposed to dynamic climate impacts and are among the most threatened on the planet*".[109]

92. Tonga has three sources of water for domestic consumption: stored rainwater, a few private domestic wells, and reticulated water from groundwater reserves. Groundwater supplies are impacted from salt-water intrusion because of increasing sea-levels, droughts, and extreme weather events such as tropical cyclones.

93. Rising sea-levels are likely to cause salt-water intrusion, particularly in low-lying coastal areas. As the sea rises, the water table will be elevated from the existing level, resulting in a more shallow or thinner freshwater lens. With the current and future projections of mean sea-level rise in Tonga, there will be increased sea sprays on coastal areas. Low-lying areas will also see increased salinity in their wells or groundwater. The areas of farmland located along the coast are expected to experience higher moisture and increased salinization due to inundation or flooding, reducing their suitability for agriculture.

94. The occurrence of extreme weather events has also increased the levels of salinity in freshwater lens. It was evident in the water resources in Ha'apai after Ian, with assessment results showing increased levels of salinity in the production wells and the

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107 Ibid.

108 *Climate Risk Country Profile* (n 54).

109 Intergovernmental Panel on Climate Change (n 49) 2045.

private well in Lifuka. This will impact the availability of freshwater in Tonga for both human and animal consumption, and for agriculture.

D. Tonga's agriculture sector is fundamental to its economy and anthropogenic climate change threatens its longevity

95. The IPCC's Sixth Assessment Report notes that:

> "*Projected impacts of climate change on agriculture and fisheries pose serious threats to dependent human populations … making the risk caused to livelihoods a key risk in small islands*". [110]

96. Climate change threatens Tonga's economy and food security. Agriculture is a key contributor to Tonga's economy. The agriculture and forestry sector contributes 16.2 percent to Tonga's GDP and employs a third of the labour force. For a majority of the population, agriculture is the only source of livelihood and is predominantly used for subsistence purposes. Traditional knowledge has also enabled sustainable production and the supply of agricultural products.

97. For Tongan farmers, they have their own calendar which guides their farming activities. Tongan fables have also prescribed the historical importance of agricultural products in Tongan culture. However, Tonga's agricultural land is vulnerable to intense weather events and rising sea-levels. This has impacted the livelihoods of Tongan people through losses in crop yields, the destruction of natural resources, and unavailability of arable land.[111]

98. Agricultural produce has also been on the tail end of severe tropical cyclones that have impacted Tonga. For instance, Gita, which hit Tonga in 2018 amounted to TOP$300 million in damages to the agricultural sector. The earlier cyclones such as Renee (2011) and Ian (2014) cost TOP$19.4 million (USD 8 million) and TOP$20.6 million (USD 8.7 million) in agricultural damages, respectively.[112] From these figures, it holds true that as cyclones increase in severity, so will the damage inflicted on all sectors in Tonga.

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110 Intergovernmental Panel on Climate Change (n 49) 2046.

111 Latiume Kaufusi (n 79) [14].

112 Government of the Kingdom of Tonga, 'Joint National Action Plan 2 on Climate Change and Disaster Risk Management (JNAP 2) 2018-2028' (Web Page, May 2018) 9 <https://library.sprep.org/sites/default/files/jnapdrm-2018-2028.pdf> ('*JNAP 2*').

99. The quality and quantity of agricultural yield in Tonga is largely determined by the soil on which it is grown. The soil in Tonga is a mixture of weathered coral and layers of volcanic ash, which makes the soil very fertile and highly productive.[113] The makeup and fertility of soil in Tonga is affected by different factors. These factors have often affected the ability of soil to yield agricultural produce and contain freshwater.

100. In terms of human activity, agricultural activities in Tonga continue to exhaust the fertility of soil. This has mainly been caused by the clearing of land for development, the use of pesticides and fertilisers, and heavy equipment. As a result of land clearing, this has caused degradation and erosion of soil. Soil erosion is presumed to be more prevalent in islands that have a steep land formation like Vava'u and 'Eua.[114]

101. Warming temperatures have increased the rate of mineralisation of soil organic matter. Further, the rate of carbon capture by soils is projected to increase due to increased levels of atmospheric carbon dioxide.

102. Increased rainfall has provided the soil with better hydration, depending on its intensity. However, increased rainfall also results in greater risks of erosion and soil degradation. Storm surges cause possible contamination and salinization of soils and, at times, damage coastal infrastructure such as roads, resorts, wharves, and marinas.[115]

E. Anthropogenic climate change threatens to sever the Tongan people's cultural connection with the islands including for future generations

103. The IPCC recognises the impact of climate change on culture:

> "*Some studies from the Pacific suggest that climate-migration linked to reduced habitability … can have particularly severe cultural implications in a small island context where community solidarity and cohesion linked to place-based identity are important aspects of adaptive capacity*". [116]

104. At the heart of the impacts of climate change are the people of Tonga. Tongans share a deep connection with the land and the oceans. They are "*Ocean People*". In the words

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113 The Kingdom of Tonga, 'Fourth Report: Review of Tonga National Biodiversity Strategy and Action Plan' 18 (Web Page, 2010) <https://www.sprep.org/att/IRC/eCOPIES/Countries/Tonga/63.pdf> ('*Review of National Biodiversity Strategy and Action Plan*').

114 *Third National Communication* (n 27) 99.

115 *Review of National Biodiversity Strategy and Action Plan* (n 113).

116 Intergovernmental Panel on Climate Change (n 49) 2069.

of a great Tongan author, ‘Epeli Hau ‘ofa “We are the sea; we are the ocean. Oceania is us”.[117] The ocean feeds Tongans, is their mode of transportation, and is part of their deep-seated culture.[118] Tonga’s history is rich with stories of Tongan people and their ancestors relying on the seas for navigation, on the land for sustenance, and the agricultural produce and marine life for their livelihoods.[119] As the world becomes more developed and the various environmental impacts become prevalent, the people of Tonga are forced to adapt to the changes around them.[120]

105. In the South Pacific, an important maxim is, “*land is life, without land, there is no life*”. It is on this land where generations of indigenous communities have practiced and preserved their tradition.[121] They have adapted to the environment around them, developing indigenous environmental knowledge which has been passed on to subsequent generations. Such a deep-rooted relationship with the environment across generations can facilitate a sensitivity to, and awareness of, changes to the natural environment.[122]

106. Tonga has existed for years with its people, its language, its culture, and traditions being passed from generation to generation. The Tongans are guided by their motto “*Koe ‘Otua mo Tonga ko hoku Tofi‘a*” or “*God and Tonga are my heritage*”. The very existence of this small island, its people, and its surrounding ocean has been the heritage of the Tongan people, encompassing their home and identity as Tongans and passed from generation to generation.

107. This heritage is threatened due to the devastating impacts of climate change on the people in Tonga and their livelihoods, exacerbating existing hazards and challenges Tonga faces. Most of the villages in Tonga are situated along the coastal zone. The main island of Tongatapu houses a majority of the Tongan population. The capital

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117 ‘ **Hau'ofa**, E. 1994. **Our Sea of Islands**. The Contemporary Pacific 6 (1): 148-61. URI. http://hdl.handle.net/10125/12960.

118 King Tupou VI, King of the Kingdom of Tonga, ‘Statement’ (Speech, The 28th Session of the Conference of the Parties (COP 28) to the United Nations Framework Convention on Climate Change (UNFCCC), 1 December 2023) 2 <https://unfccc.int/sites/default/files/resource/TONGA_cop28cmp18cma5_HLS_ENG.pdf >.

119 Sioka Noa, Witness Statement (13 March 2024) Annex 2, [4] and [6]; Semisi Tongia (n 34) [9]; Latiume Kaufusi (n 79) [5]-[6], and [21]; Patelisio Fe’ao (n 47) [5]-[7].

120 *JNAP 2* (n 112).

121 Pulotu Ma’u (n 46) [5] and [9]-[10]; Semisi Tongia (n 34) [10]-[11]; , §§10-11; Latiume Kaufusi, (n 79) [5] and [7].

122 David Sattler et al, ‘A social-cognitive model of climate change behavioural adaption in Tonga: Relationships among indigenous knowledge, social media use, norms, values, and spiritual beliefs’ (2023) 91(1) *Journal of Environmental Psychology* <https://www.sciencedirect.com/science/article/abs/pii/S0272494423001962>.

Nuku‘alofa is particularly populous, and at the same time has a relatively low elevation. Communities of people are exposed and susceptible to the impacts of sea-level rise, intense storm surges, and high energy waves. Inter-island migration is also growing, with Tongans from the outer islands migrating to Tongatapu in search of better opportunities.[123] A majority of them settle on the marginal, low lying, and flood prone lands, further increasing their vulnerability.[124] Soil loss is readily seen in villages like, Kolomotu‘a, Sopu, Popua and Patangata, all within the Nuku‘alofa area.[125]

108. A large number of temporary and permanent displacements in Tonga have been triggered by weather-related events. Storms, especially cyclones, are the main triggers of displacement in Tonga. As a result of Gita in 2018, approximately one-third of the population was displaced.[126] Reports showed significant impacts on both Tongatapu and ‘Eua, affecting around 80,000 people, destroying more than 800 houses, and damaging an additional 4,000. Harold in 2020 caused around 2,700 people to be sheltered in evacuation centres.

109. The impact on future generations is significant. There will be either no Tonga or an uninhabitable Tonga. Tonga will become a story of a place that once existed in the hearts and memories of the people of Tonga. Future generations will be displaced and forced to adapt to a new environment unknown to the people of Tonga.

F. Tonga has been proactive in addressing the adverse effects of climate change at domestic, regional, and international levels

110. Tonga recognises that because it is at the forefront of the effects of climate change it too needs to join global action towards reducing greenhouse gas emissions.

111. Tonga has to date had limited technical capacity and human and financial resources to comprehensively report and monitor the impacts of climate change on both its terrestrial and marine ecosystems. As such, it is difficult to comprehensively report and monitor the impacts of climate change on its environment.

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123 Latiume Kaufusi (n 79) [18]-[20]; §§18-20; Patelisio Fe’ao (n 47) [19]-[20].

124 *JNAP 2* (n 112).

125 Ibid.

126 Internal Displacement Monitoring Centre, ‘Sudden-Onset Hazards and the Risk of Future Displacement in Tonga’ (Web Page, 2020) 9 <https://api.internal-displacement.org/sites/default/files/publications/documents/21_0907_IDMCTongaRiskprofile.pdf>.

112. Despite its position as a SIDS, Tonga is making significant efforts to develop its resilience, reduce carbon emissions, and protect the environment. Tonga has, through several national, regional, and international efforts worked towards developing a resilient Tonga. Limited information has constrained the ability to undertake long term planning, and to access financial support for adaptation and mitigation.

National measures

113. One of Tonga's national strategic priorities is to consider environmental issues with its development goals. To this end, Tonga has implemented the following national measures:

113.1 Developed a national Tonga Climate Change Policy – A Resilient Tonga by 2035 ("**Climate Change Policy"**).[127] The Policy mainstreams the goals of a Resilient Tonga into government legislation, policies, and planning at all levels. It also implements a coordinated approach to research, monitoring and management of data and information, resilience-building response capacity, resilience building actions, finance, and regional and international cooperation.

113.2 Developed the Joint National Action Plan on Climate Change and Disaster Risk Management (**JNAP II**). This plan is a continuation of Tonga's first Joint National Action Plan (**JNAP**), which was a first for the Pacific Island region.[128] JNAP II is aligned with, and adopts the same policy objectives, as the Climate Change Policy.

113.3 Tonga has also considered its emissions footprint and developed a Long Term Low Emission Development Strategy (**LT-LEDS**) 2021 – 2050 to support the reduction of greenhouse gas emissions.[129] The LT-LEDS follows five sector pathways (energy, transport, agriculture, forestry and other land use and fisheries, waste, and human settlements) while also outlining climate-resilience and adaptation actions.

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127 Government of Tonga, 'Tonga Climate Change Policy – A Resilient Tonga by 2035' (Web Page, 2016) <https://faolex.fao.org/docs/pdf/ton168233.pdf>.

128 *JNAP 2* (n 112).

129 *Tonga LEDS* (n 70) 11.

113.4 In aligning with Tonga's priorities under the Tonga Strategic Development Framework II (2015-2025), Tonga has also issued National Infrastructure Investment Plans in 2010, 2013, and 2015 to link its strategic priorities with infrastructure development projects while considering existing economic, social, and environmental criteria.

Regional and Global Level

114. In line with Tonga's commitment to regional and international cooperation. Tonga participates fully in a range of regional and global initiatives on climate. For example, Tonga is a member of the Pacific Islands Forum (**PIF**), the Pacific Region's premier political and economic policy organisation. Comprised of 18 members,[130] PIF's Vision is for a "*region of peace, harmony, security, social inclusion and prosperity, so that all Pacific people can lead free, healthy, and productive lives*".[131]

115. As a member of PIF, Tonga has supported the PIF's declarations. These include declarations relating to the adverse effects of climate change and disasters and their threats to the future of the region's people and the statehood of many Pacific nations. PIF has also been vocal on strategic and operational issues such as climate finance, disaster risk reduction mechanisms, loss and damage, the nexus between climate change and the ocean and maritime boundaries. The PIF declarations also cover social and human challenges brought about by climate change, including human rights, the rights of women and girls, the rights of persons affected by climate change, food and water security, disasters as well as climate change and disaster related mobility including relocation, migration, and displacement.

116. Relevant PIF declarations include:

116.1 The Kainaki II declaration which recognises the "*climate change crisis facing… Pacific Island Nations*" and calls on the international community to keep commitments made under the UNFCCC, including limiting global

130 Australia, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Kiribati, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

131 The Pacific Islands Forum, 'The Pacific Islands Forum Vision' (Web Page) <https://www.forumsec.org/who-we-arepacific-islands-forum/>.

warming and meeting the global climate finance commitments to enable States to meet climate change challenges in the Pacific region.[132]

116.2 The Boe declaration which recognises climate change is a threat to livelihoods.[133]

116.3 **Framework for Resilient Development in the Pacific (FRDP) 2017-2030: An Integrated Approach to Address Climate Change and Disaster Risk Management** endorsed by PIF Leaders in 2017

116.4 The 2050 Strategy for the Blue Pacific Continent which covers the issue of climate change in the three thematic areas of (a) Peace and Security, (b) Resources and economic development, and (c) climate change and disasters.[134]

116.5 The Pacific Islands Forum Communique 2023 which includes a "*commitment to the transition away from coal, oil and gas in our energy systems*", reiterates calls for "*substantially greater levels of climate finance, technology and capacity*" and endorsed the Pacific Regional Framework on Climate Mobility.[135]

116.6 AOSIS Leaders Declaration 2023 which reaffirmed that climate change continues to pose the most serious threat to its sustainable development.[136]

UNFCCC Communications and Nationally Determined Contributions

117. Tonga has submitted three National Communications under the UNFCCC framework.

117.1 Tonga's Initial National Communication (**INC**) was submitted in May 2005. It focused on adaptation, minimising greenhouse gas emissions (referred to in the INC as GHGs), increasing awareness of climate change and levels of

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132 'Pacific Islands Forum Issues Strongest-ever Statement on Climate, Cites Security Threat', *IISD SDG Knowledge* Hub, (Web Page, 20 August 2019) < https://sdg.iisd.org/news/pacific-islands-forum-issues-strongest-ever-statement-on-climate-cites-security-threat/>.

133 Pacific Islands Forum, 'Boe Declaration on Regional Security' (Web Page, 2018) <https://www.forumsec.org/2018/09/05/boe-declaration-on-regional-security/>.

134 Pacific Islands Forum, '2050 Strategy for the Blue Pacific Continent' (Web Page, 2022) <https://www.forumsec.org/2050strategy/>.

135 Pacific Islands Forum, 'Fifty-Second Pacific Islands Forum Communique' (Web Page, 2023) 4 <https://www.forumsec.org/wp-content/uploads/2023/11/FINAL-52nd-PIF-Communique-9-November-2023-1.pdf>.

136 Alliance of Small Island States (AOSIS), Leaders' Declaration 2023 < https://www.aosis.org/2023-aosis-leaders-declaration-2/>

preparedness, and developing a national climate change framework and policy. The INC noted that there were a "*range of opportunities to abate the emissions of GHGs from the Energy Sector will be successful if they can operate within the technical, financial, institutional frameworks and the capabilities available locally. Tonga needs external financial resources and technical expertise and assistance*".[137]

117.2 Tonga's Second National Communication (**SNC**) was submitted in March 2012. It noted significant progress in addressing climate change issues, including the formulation of a climate change policy, accession to the Kyoto Protocol, consideration of climate change as one of the priority goals in Tonga's Strategic Development Framework and the development of a JNAP.[138] The SNC again emphasised the importance of international cooperation, financial support and technology transfer to address climate challenges.[139]

117.3 Tonga's Third National Communication (**TNC**) was submitted in February 2020. The TNC noted significant progress in addressing climate change, including the strengthening of national capacities, partnership, and cooperation with related sectors, raising general knowledge, increased involvement of all relevant stakeholders and enhanced awareness on climate change and its impacts. TNC specifically notes the generous contributions from donors and development partners, including the Global Environment Facility (**GEF**) and United Nations Development Programme in helping it to complete the TNC and achieve progress on its goals.[140] The TNC notes that Tonga is committed to reducing its greenhouse gas emissions through the use and promotion of renewable energy resources and energy efficiency appliances.

118. Tonga submitted its first Nationally Determined Contribution Report in 2015. Its mitigation measures included targets of 50 percent of electricity generated from

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137 The Kingdom of Tonga, *The Kingdom of Tonga's Initial National Communication* (Report, May 2005) 62 <https://unfccc.int/resource/docs/natc/tonnc1.pdf>.

138 The Kingdom of Tonga, *Tonga's Second National Communication on Climate Change* (Report, March 2012) 5 <https://unfccc.int/sites/default/files/resource/tonnc2.pdf>.

139 Ibid 46, 97, 151.

140 *Third National Communication* (n 27).

renewable sources by 2020, 70 percent of electricity generated from renewable sources by 2030, a reduction of line losses of electricity to nine percent by 2020, doubling the number of Marine Protected Areas by 2030 and the development of greenhouse gas emission reduction targets for the transport, agriculture, waste, and forestry sectors.

119. Tonga submitted its Second Nationally Determined Contribution Report in 2020. Its mitigation measures include a 13 percent reduction in greenhouse gas emissions through a transition to 70 percent renewable electricity and energy efficiency measures; establishment of a forest inventory as prerequisite to identify a GHG emission target for the 2025 NDC and planting one million trees by 2023. The Report also notes that "*while Tonga will continue to invest large portions of its public finance and service capacity in the ambitious quest to achieve our climate mitigation and resilience objectives, achieving the targets set out in Tonga's 2020 NDC will require considerable support for financing, capacity and technology investment from external sources*".

CHAPTER V. APPLICABLE LAW & RULES OF INTERPRETATION

120. It is for the Court to decide the law applicable to the questions in the Request. This Chapter explains Tonga's approach to the legal framework that should guide the Court in answering the questions.

121. As opposed to more specialised courts and tribunals, the ICJ is a court of general competence, which allows it to consider all relevant legal rules to answer the questions before it.

122. The preamble to the Request identifies several sources of international law that may be relevant to the interpretation of States' obligations with respect to climate change. The preamble refers to the Charter, as well as human rights law (the International Covenant on Civil and Political Rights (**ICCPR**), the International Covenant on Economic, Social and Cultural Rights (**ICESCR**) and the Universal Declaration of Human Rights (**UDHR**), the Climate Change Treaties (the UNFCCC and the Paris Agreement), the United Nations Convention on the Law of the Sea (**UNCLOS**), and obligations of a more general nature that relate to the environment (duty of due diligence, the principle

of prevention of significant harm to the environment and the duty to protect and preserve the marine environment)).

123. Tonga is of the view that the Court should consider whether these sources of law, form part of the law applicable to the questions asked of the Court, and therefore will be considered as relevant to Tonga's circumstances. In addition, the Court may consider whether other sources of law are relevant to the questions asked.

124. Due to their subject matter, Tonga submits that the UNFCCC and the Paris Agreement are the principal sources of law relevant to the Request before the Court. Additionally, other areas of law may inform the correct interpretation of States' obligations under the UNFCCC and the Paris Agreement, and vice versa.

125. The customary rules of treaty interpretation, reflected in Articles 31 to 33 of the Vienna Convention on the Law of Treaties (**VCLT**),[141] inform how the Court should consider the interaction between UNFCCC and the Paris Agreement, and other relevant bodies of law. Article 31(3)(c) of the VCLT prescribes that when interpreting a treaty, "*any relevant rules of international law applicable in the relations between the parties*" shall be taken into account, together with its context.[142]

126. In this context, when "*when several norms bear on a single issue they should, to the extent possible, be interpreted so as giving rise to a single set of compatible obligations*".[143] This approach is known as "*systematic integration*" or "*harmonious interpretation*".[144] The rule in Article 31(3)(c) assists States in achieving coherence between different sets of the rights and obligations. The principle is important in contexts such as climate change.

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141 *Vienna Convention on the Law of Treaties*, opened for signature 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980) ('*VCLT*'); see *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro) (Judgment)* [2007] ICJ Rep 43, 110 [160] ('*Application of the Convention on the Prevention and Punishment of the Crime of Genocide*'); *Responsibilities and obligations of States with respect to activities in the Area (Advisory Opinion)* [2011] ITLOS Rep 10, 27 [57] ('*Responsibilities and obligation of States with respect to activities in the Area*').

142 *VCLT* (n 141) art 31(3).

143 International Law Commission, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, 58th sess, Agenda Item 11, UN Doc A/CN.4/L.682 (13 April 2006) 105 ('*ILC Report on the Fragmentation of International Law*').

144 Ibid, 25, 49.

127. Accordingly, Tonga's submissions will focus on the UNFCCC and the Paris Agreement, and consider other relevant areas of law that interact with States' obligations in respect of climate change including, law of the sea, biological diversity, human rights, and other rights and obligations of States under international law. These sources of law inform the correct understanding of the Climate Change Treaties and the rights and obligations of States under general international law regarding climate change. Conversely, the UNFCCC and the Paris Agreement therefore inform and complement States' concurrent obligations under other bodies of international law.

CHAPTER VI. PRELIMINARY CONSIDERATIONS & INTERPRETATION OF THE QUESTION PUT TO THE COURT

A. Meaning of "*climate system and other parts of the environment*"

"Climate system"

128. "*Climate system*" is defined in the UNFCCC to mean "*the totality of the atmosphere, hydrosphere, biosphere and geosphere and their interactions*".[145] The IPCC considers the "*climate system*" to include five major components: "*the atmosphere, the hydrosphere, the cryosphere, the land surface and the biosphere, forced or influenced by various external forcing mechanisms, the most important of which is the Sun*". The IPCC's interpretation of the "*climate system*" is illustrated in **Figure 3** below.[146]

[145] *United Nations Framework Convention on Climate Change*, opened for signature 9 May 1992, 1771 UNTS 107 (entered into force 21 March 1994), art 1(3) ('*UNFCCC*').

[146] Intergovernmental Panel on Climate Change, 'The Climate System: an Overview' in J.T. Houghton et al (eds*), Climate Change 2001: The Scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2001) 87, 88 <https://www.ipcc.ch/site/assets/uploads/2018/03/TAR-01.pdf>.

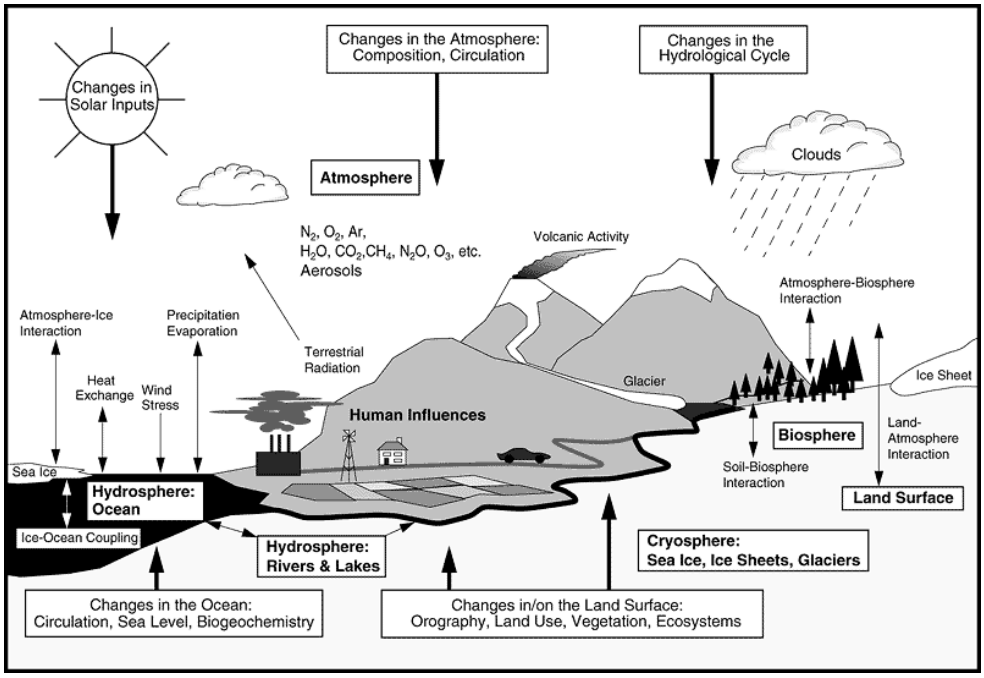

Figure 3 The Climate System: Schematic view of the components of the global climate system (bold), their processes and interactions (thin arrows) and some aspects that may change (bold arrows)

129. The IPCC's definition of "*climate system*" is broader than that contemplated in the UNFCCC. This widened definition of "*climate system*" can be attributed to developments in scientific knowledge of our climate system and how climate change may impact these systems.

130. On the basis of greater scientific understanding, the IPCC, as the eminent United Nations body for assessing the science related to climate change, should be considered authoritative on the meaning of our "*climate system*". This approach is consistent with the need to give the UNFCCC and the Paris Agreement an evolutive interpretation to account for developments in the international community's understanding of the science behind climate change.[147] As such, the broader definition offered by the IPCC should inform the meaning of "*climate system*" in the question put before the Court.

147 *Dispute Regarding Navigational and Related Rights (Costa Rica v. Nicaragua)* [2009] ICJ Rep 213 [64] ('*Dispute Regarding Navigational and Related Rights*').

"Other parts of the environment"

131. The concept of the environment is considered to encompass the features and products "*of the natural world and those of human civilisation*", including but going beyond just "*nature*".[148] UNGA Resolution 61/36 referred to the "*environment*" as the "*natural resources, both abiotic and biotic, such as air, water, soil, fauna and flora and the interaction between the same factors, and the characteristic aspects of the landscape*".[149] On a scientific approach, the term refers to the atmosphere, atmospheric deposition, soil, sediment, water quality, biology, and humans.[150] This would also promote a harmonious interpretation with the subject matter contemplated under the Convention on Biological Diversity (**CBD**).[151] This is further reinforced when understood in conjunction of the definition of "*climate system*" and the "*adverse effects of climate change*" in the UNFCCC as discussed in these **paragraphs 128 to 131**.

B. Meaning of "*adverse effects of climate change*"

132. "*Adverse effects of climate change*" is defined in the UNFCCC to mean:

> "*changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare*" (emphasis added).[152]

133. The UNFCCC's definition of "*adverse effects of climate change*" is broad and contemplates a wide range of circumstances in which climate change may cause significant detriment to an ecosystem or human health and welfare. The term has been used by various United Nations organisations, such as the United Nations High Commissioner for Refugees (**UNHCR**) and the IPCC, in diverse contexts.

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148 Philippe Sands, *Principles of International Environmental Law* (Cambridge University Press, 1st ed, 2018) 14.

149 *Allocation of loss in the case of transboundary harm arising out of hazardous activities*, GA Res 61/36, UN Doc A/Res/61/36 (18 December 2006).

150 Sands (n 148) 15.

151 *Convention on Biological Diversity*, 1760 UNTS 69 (signed 5 June 1992, entered into force 29 December 1993), art 2 ('*Convention on Biological Diversity*').

152 *UNFCCC* (n 145) art 1(1).

134. For instance, the UNHCR noted that the "*adverse effects of climate change*" includes the following consequences:

> "*the growing prevalence, spread and severity of new and re-emerging diseases, food insecurity and famine; increasingly scarce habitual land and potable water; exposure to exploitation and trafficking; as well as to human, material, economic or environmental losses, including lost incomes, homes, livelihoods and even lives*".[153]

C. The causes of "*adverse effects on climate change*"

135. Tonga submits there is global and scientific consensus on the "*adverse effects of climate change*". For example, preambular paragraph nine of UNGA Resolution 77/276 recalls two central aspects of scientific consensus:

135.1 *first,* recognising that "*anthropogenic emissions of greenhouses gases are unequivocally the dominant cause of the global warming observed since the mid-20th century*"; and

135.2 *second,* human-induced climate change has resulted in "*more frequent and intense extreme events, has caused widespread adverse impacts and related losses and damages to nature and people*".

136. Resolution 77/276 makes clear that these components of the scientific consensus are not the only ones which the UNGA "*not*[es] *with utmost concern*". The two components of scientific consensus singled out in preambular paragraph nine also rely on statements in the Summaries for Policymakers of IPCC reports. These Summaries for Policymakers have been approved by consensus, line-by-line, by all 195 member States of the IPCC. The Summaries are the expression not only of scientific consensus but also of State consensus on the science of climate change.

137. The phrase "*adverse effects of climate change*" provides a holistic picture and does not discriminate between all sectors that contribute to anthropogenic greenhouse gas emissions.

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153 United Nations High Commissioner for Refugees, 'Legal Considerations Regarding Claims for International Protection Made in the context of the Adverse Effects of Climate Change and Disasters' (2021) 33(1) *International Journal of Refugee Law* 151, 152.

CHAPTER VII. CLIMATE CHANGE TREATIES

A. The Climate Change Treaties regulate anthropogenic greenhouse gas emissions

138. Three principal treaties regulate anthropogenic greenhouse gas emissions:

138.1 The UNFCCC (1992) – a broad framework which establishes guiding principles to regulate climate change;

138.2 The Kyoto Protocol (1997) – imposes binding substantive obligations of result requiring developed countries to achieve greenhouse gas mitigation targets and timetables; and

138.3 The Paris Agreement (2016) – sets procedural obligations and obligations of conduct regarding greenhouse gas mitigation and transparency on all States. The Paris Agreement is a treaty, that contains "*a mix of hard, soft and non-obligations between which there is dynamic interplay*",[154]

(together, the **Climate Change Treaties**).

139. As a SIDS, Tonga's submissions will focus primarily on States' obligations in the UNFCCC and the Paris Agreement.

B. The Paris Agreement's temperature, adaptation, and finance goals specify the measures necessary to limit the adverse effects of climate change

140. The ultimate objective of the 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*".[155] The purpose of the Paris Agreement is to enhance the implementation of the UNFCCC.[156] The Paris Agreement's objective, set out in Article 2(1), identifies three inter-related goals

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154 Lavanya Rajamani, 'The 2015 Paris Agreement: Interplay between Hard, Soft and Non-Obligations' (2016) 28(2) *Journal of Environmental Law*, 352.

155 *UNFCCC* (n 145) art 2.

156 *Paris Agreement*, opened for signature 22 April 2016, 1155 UNTS 146 (entered into force 4 November 2016), art 2(1) ('*Paris Agreement*').

necessary to "*strengthen the global response to climate change*",[157] namely, the temperature goal, the adaptation goal, and the finance goal.

141. The temperature goal sets the objective of 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*".[158]

142. The adaptation goal focuses on increasing States' ability to "*adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production*".[159]

143. The finance goal requires States to pursue efforts to make "*finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development*".[160]

144. The grouping of three objectives under the chapeau of Article 2(1) demonstrates the interrelated nature of the temperature, adaptation, and finance goals in responding to the adverse effects of climate change. This means action on all three goals is necessary to make meaningful progress in pursuit of the UNFCCC and the Paris Agreement's objectives.

Obligations of conduct

145. The Climate Change Treaties contain both "*obligations of result*" and "*obligations of conduct*". Obligations of result require the realisation of a specified outcome. Obligations of conduct require an endeavour towards a goal or outcome.[161]

146. Article 4(2) of the Paris Agreement is central to the Climate Change Treaties. It requires each State Party to:

> "*prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic*

157 Ibid art 2(1).

158 Ibid art 2(1)(a).

159 Ibid art 2(1)(b).

160 Ibid art 2(1)(c).

161 Benoit Mayer, 'Obligations of conduct in the international law on climate change: A defence' (2018) 27(2) *Review of European, Comparative & International Environmental Law* 131.

> *mitigation measures, with the aim of achieving the objectives of such contributions*".[162]

147. Article 4(2) contains two obligations. The first obligation, reflected in the first sentence, is a procedural obligation of result obliging States to prepare and submit their NDCs within the specified timeframe. The second obligation, reflected in the second sentence, requires States to pursue domestic measures with the aim of achieving the objective of their NDCs, being an obligation of conduct subject to due diligence requirements.[163] The use of the word "*shall*" in the second sentence creates a legal obligation to "*pursue domestic measures*".

148. The language used in Article 4(2) to "*pursue domestic measures*" indicates this is an obligation of conduct. The word "*measures*" is not defined or specified. This suggests an expectation of conduct rather than achieving a particular result as a broad array of "*measures*" could be implemented to satisfy the requirements of Article 4(2). Further, the use of aspirational language in the second sentence such as "*intends to achieve*" and "*with the aim of achieving the objectives*" reflects an obligation to exercise "*best efforts*".[164] The language agreed by States purposely falls short of requiring States to achieve a particular objective or result. Reading Article 4(2) as an obligation of conduct "*ensures that parties will not be sanctioned when external circumstances hinder their efforts, thus reflecting the principle that a State's obligation depends on its capabilities*".[165]

149. The obligation on States to prepare and implement its NDC in Article 4(2) of the Paris Agreement must be read in light of Article 3:

> "*As nationally determined contributions to the global response to climate change, all Parties are to undertake and communicate ambitious efforts as defined in Articles 4, 7, 9, 10, 11 and 13 with the view to achieving the purpose of this Agreement as set out in Article 2. The efforts of all Parties will represent*

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162 *Paris Agreement* (n 156) art 4(2).

163 Lavanya Rajamani, 'Due Diligence in International Climate Law' in Heike Krieger, Anne Peters and Leonhard Kreuzer (eds), *Due Diligence in the International Legal Order* (Oxford University Press, 2020) 169.

164 See Lavanya Rajamani, 'Ambition and Differentiation in the 2015 Paris Agreement: Interpretative Possibilities and Underlying Politics', (2016) 65(2) *International and Comparative Law Quarterly* 493– 514; Daniel Bodansky, 'The Legal Character of the Paris Agreement' (2016) 25(2) *Review of European, Comparative and International Environmental Law* 142– 150; Ralph Bodle and Sebastian Oberthür, 'The Legal Form of the Paris Agreement and Nature of its Obligations' in Daniel Klein et al (eds), *The Paris Agreement on Climate Change: Analysis and Commentary* (Oxford University Press, 2017) 91-103.

165 Mayer (n 161) 137; *Paris Agreement* (n 156) art 2(2).

a progression over time, while recognizing the need to support developing country Parties for the effective implementation of this Agreement".[166]

150. Article 3 includes substantive ("*undertake*") and procedural ("*communicate*") obligations.

151. *First*, the requirement to "*undertake*" ambitious efforts requires States to implement domestic measures directed at climate mitigation, adaptation, finance, technology transfer, and capacity-building. This is the substantive element and the word "*undertake*" implies a legal obligation of conduct.[167] The term "*efforts*" was selected to preclude the need to characterise the full range of actions across the Paris Agreement as "*contributions*".[168] On the other hand, the obligation to communicate those ambitious efforts is a procedural obligation of result to convey the relevant information as part of a States' National Communications and NDC.

152. *Second*, Article 3 requires States efforts to "*represent a progression over time*". States' actions must build upon existing commitments. The language of "*will*" reflects an expectation of more ambitious action over time.[169] Article 13(7)(b) of the Paris Agreement further reinforces this expectation in requiring States to regularly provide the "[i]*nformation necessary to track progress made in implementing and achieving its nationally determined contribution under Article 4*".

153. The Paris Agreement does not define "*progression*" nor "*highest possible ambition*". However, Articles 3 and 4 of the Paris Agreement link together other key provisions of the Paris Agreement in relation to mitigation, adaptation, and support progression across these areas.[170] For example, Article 4(3) sets a clear expectation that Parties will communicate successive NDCs that progress beyond the existing and past NDCs, with the view to being more ambitious. As such, "*progression*" contemplates a self-regulated baseline, reflective of States' capabilities, to exercise due diligence in carrying out its obligations under Articles 3 and 4 of the Paris Agreement. The concept

166 *Paris Agreement* (n 156) art 3.

167 *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro) (Judgment)* [2007] ICJ Rep 43, p. 111, [162].

168 Klein (n 164) 138.

169 Ibid 140.

170 *Paris Agreement* (n 156) art 4(4); Klein (n 168) 139.

of "*due diligence*" is discussed below at **paragraphs 155 to 160**. "*Progression*" reflecting the "*highest ambitions*" of a State, referred to in Article 4(3), must be read together with Article 4(1) of the Paris Agreement, which recognises that "*peaking* [their emissions] *will take longer for developing country Parties*".

154. This leads to the final element of Article 3 which refers to "*the need to support developing country Parties for the effective implementation of this Agreement*". The "*highest possible ambition*" of SIDS and their ability to pursue emissions reduction and climate mitigation and adaptation initiatives, are different to that of developed States and will ultimately take longer to achieve. Recognising this difference in capacities, Article 4(6) of the Paris Agreement states that "[t]*he least developed countries and small island developing States may prepare and communicate strategies, plans and actions for low greenhouse gas emissions development reflecting their special circumstance*s". Article 4(6) aims to provide SIDS with greater flexibility in communicating their climate ambitions, commensurate with their national circumstances. Consequently, developing States' abilities to implement its obligations under the Climate Change Treaties are conditional on developed States adhering to their obligations in relation to technical and financial assistance. The obligations on developed States to provide technical and financial assistance to developing States are set out in detail at **Chapter VII, Part E**.

"Due diligence" character that must represent a progression over time

155. The UNFCCC and the Paris Agreement reflect an internationally accepted standard of conduct, agreed by States, to reduce anthropogenic greenhouse gas emissions and pursue mitigation and adaptation measures. While the Paris Agreement gives each State autonomy and flexibility in setting its NDC and choosing the measures it implements to respond to its climate mitigation and adaptation obligations, these are still subject to the applicable standard of conduct.

156. The non-procedural obligations contained in the Paris Agreement, particularly Articles 3 and 4, are obligations of conduct with a "*due diligence character*". In the context of obligations of prevention, being obligations of conduct such as those contemplated in the Climate Change Treaties, the ILC has stated such obligations, "*are usually*

construed as best efforts obligations, requiring States to take all reasonable or necessary measures to prevent a given event from occurring, but without warranting that the event will not occur".[171] Consequently, States' obligations under the UNFCCC and the Paris Agreement require the exercise of due diligence.

157. In clarifying the content of due diligence obligations, the Seabed Disputes Chamber in its Advisory Opinion on *Activities in the Area* noted:

> "*The content of "due diligence" obligations may not easily be described in precise terms. Among the factors that make such a description difficult is the fact that "due diligence" is a variable concept. It may change over time as measures considered sufficiently diligent at a certain moment may become not diligent in light, for instance, of new scientific or technological knowledge. It may also change in relation to the risks involved in the activity. …. The standard of due diligence has to be more severe for the riskier activities*"[172] (emphasis added).

158. In considering the content of a "*due diligence obligation*", the following measures may be considered as amounting to "*due diligence*":

158.1 taking affirmative measures within a States' legal system, consisting of "*laws and regulations and administrative measures*";[173] and

158.2 exercising "*a certain level of vigilance in their* [laws and regulations] *enforcement and the exercise of administrative control applicable to public and private operators, such as the monitoring of activities undertaken by such operators*".[174]

159. Importantly, due diligence is a continuing obligation as reflected by the fact that the obligation will evolve over time taking into account "*new scientific or technological knowledge*".[175]

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171 *Responsibility of States for Internationally Wrongful Acts*, GA Res 56/83, UN Doc A/RES/56/83 (28 January 2002, adopted 12 December 2001) ('*Responsibility of States for Internationally Wrongful Acts*'); International Law Commission, *Report of the International Law Commission on the Work of Its Fifty Third Session*, UN GAOR, 56th sess, Supp No 10, UN Doc A/56/10 (2001), 62.

172 *Responsibilities and obligation of States with respect to activities in the Area* (n 141) 41 [110].

173 Ibid 68.

174 *Pulp Mills on the River Uruguay (Argentina v Uruguay) (Judgment)* [2010] ICJ Rep 14, 79 [197].

175 *Responsibilities and obligation of States with respect to activities in the Area* (n 141) 41 [110]; *Trail Smelter (United States, Canada) (Award)* III International Arbitral Awards 1905, 1963.

160. The due diligence standard varies on the basis of CBDR-RC, in the light of different national circumstances. In considering States' obligations as set out above, it is necessary to recall that Article 2(2) of the Paris Agreement qualifies and provides necessary context to the achievement of the objectives set out in Article 2(1) and therefore informs all obligations in the Paris Agreement. Article 2(2) provides that the Paris Agreement will be implemented to reflect "*equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances*".[176] This leads to Tonga's submission that States' obligations under the Climate Change Treaties must be interpreted in light of the principle of **CBDR-RC**.

C. The principle of common but differentiated responsibilities and respective capabilities

161. Climate change represents a "*common concern of humankind*"[177] which has causes and effects of a global nature. However, the size and scale of contributions to the causes and effects of climate change are not uniform across States, and it follows that the incentive to address climate change varies across States.[178]

162. Tonga produces 0.01 percent of global emissions, and has been ranked the world's 182nd largest emitter of greenhouse gases since 1990.[179] Tonga is recognised as highly vulnerable to climate change impacts, ranked 140th out of 185 countries in the 2021 ND-GAIN Index.[180] The ND-GAIN Index ranks 185 countries using a score which calculates a country's vulnerability to climate change and other global challenges as well as their readiness to improve resilience. The more vulnerable a country is the lower its score, while the more ready a country is to improve its resilience the higher it

176 *Paris Agreement* (n 156) art 2(2).

177 *Paris Agreement* (n 156) preamble; United Nations Framework Convention on Climate Change, *Draft-Decision -/CMA.5: The UAE Consensus, FCCC/PA/CMA/2023/L.17* (13 December 2023) [1] ('*The UAE Consensus*').

178 Lavanya Rajamani, 'The Principle of Common but Differentiated Responsibilities and Respective Capabilities in the International Climate Change Regime' in Rosemary Lyster et al (eds) *Research Handbook on Climate Disaster Law* (Edward Elgar Publishing, 2018) 46.

179 Rob Boyle, 'Tonga: Overview of carbon emissions produced by Tonga' (Web Page, 20 January 2024) <https://www.emission-index.com/countries/tonga>.

180 University of Notre Dame, *Notre Dame Global Adaptation Initiative* (2020) (Web Page) <https://gain.nd.edu/our-work/country-index/>/

will be. Tonga has limited technical and financial resources available to it, compromising its ability to adequately respond to the adverse effects of climate change.

163. Tonga submits that the principle of CBDR-RC not only underpins direct obligations of developed States owed to developing States,[181] it also informs obligations of all parties to the Climate Change Treaties.

164. The principle of common but differentiated responsibilities finds its first formal iteration in Principle 7 of the Rio Declaration on Environment and Development (1992) (**Rio Declaration**)[182] which refers to the "*different contributions to global and environmental degradation, States have common but differentiated responsibilities*". Prior to the Rio Declaration, the concept of differentiation of obligations on the basis of responsibility was recognised at the Stockholm Conference in 1972,[183] and subsequently in international law instruments including the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol.

165. The principle of CBDR-RC is expressly reflected in the context of climate change in Article 3(1) of the UNFCCC which 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*" (emphasis added).

166. The notion of CBDR-RC was again emphasised in Article 10 of the Kyoto Protocol:

> "*All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, without introducing any new commitments for Parties not included in Annex I, but reaffirming existing commitments in Article 4, paragraph 1, of the Convention, and continuing to advance the implementation of these commitments in order to achieve sustainable*

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181 See **Chapter VII, Part E** for discussion on the obligations developed States owe to developing States in relation to the provision of technical and financial assistance.

182 United Nations Conference on Environment and Development, *Rio Declaration on Environment and Development*, UN Doc A/CONF.151/26 (vol I) (12 August 1992),.

183 United Nations Conference on the Human Environment, *Stockholm Declaration: Declaration on the Human Environment*, UN Doc A/CONF.48/14/Rev.1 (16 June 1972), principle 21.

development, taking into account Article 4, paragraphs 3, 5 and 7, of the Convention…" (emphasis added).

167. The Kyoto Protocol firmly cemented the distinction between the expectations on developed and developing States. Developed States (Annex I States) were required to commit to reducing their emissions, whereas developing States were merely required to report on their emissions.

168. Finally, the principle of CBDR-RC is a central tenet of the Paris Agreement, both in the preamble and in operative provisions. The preamble states:

> "*In pursuit of the objective of the Convention, and being guided by its principles, including the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances*" (emphasis added).

169. The Paris Agreement's operative provisions make clear that States have differentiated obligations to reflect their different national capacities:

169.1 **Article 2(2):** "*This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances*" (emphasis added);

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

169.3 **Article 4(19):** "*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*".

170. As noted above, Article 2(2) of the Paris Agreement qualifies the three goals stated in Article 2(1), acknowledging the need for differentiated and equitable burden-sharing of States' common efforts in protecting the climate system from the adverse effects of

climate change. In including the principle of CBDR-RC in an overarching provision like Article 2(2), this suggests CBDR-RC is of general relevance to States' obligations in the Paris Agreement and is not limited to specific circumstances. This is further reinforced by the decision to include CBDR-RC in Article 4(3) of the Paris Agreement relating to the level of progress and ambition required from each State's successive NDC. This suggests Article 4(3) is capable of evolving to reflect Parties' social and economic circumstances.[184]

171. In these provisions, the principle of CBDR-RC structures States' obligations through self-determined differentiation, including the content, form, and implementation of obligations. This approach is reflective of the need to balance States' obligations with equitable concerns. The interpretation of States' obligations under the Paris Agreement is therefore to be considered against a wide array of criteria, including past, current and projected future emissions, financial and technical capabilities, human capacity, demographic criteria, abatement costs and opportunity costs.[185]

172. Article 4(3) should also be read in light of Article 4(4) of the Paris Agreement that provides:

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

173. When read together Articles 4(3) and 4(4) implement CBDR-RC through self-differentiation whilst setting an expectation of progression and increase in ambition, relative to each States' technical and financial resources, through successive cycles of contributions.[186] States are afforded flexibility that reflects their social and economic realities. These articles reflect the idea that "[d]*eveloped countries are the main*

184 Thomas Deleuil, 'The Common but Differentiated Responsibilities Principles: Changes in Continuity After the Durban Conference of the Parties' (2012) 21(3) *Review of European Community and International Environmental Law* 271-281.
185 Harald Winkler et al., 'What factors influence mitigation capacity', 35 *Energy Policy* 1 (2007), 692-703.
186 Rajamani (n 178) 55.

contributors of GHGs and thus should take the lead and shoulder the main responsibility to stabilize and limit the greenhouse gas emissions".[187]

174. The principle of CBDR-RC is also inherently intertwined with the specific obligations placed on developed States to provide technical and financial assistance to developing countries to pursue mitigation and adaptation measures. This is reflected in Article 4(7) of the UNFCCC which 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*" (emphasis added).

175. Article 4(7) makes clear there is a conditional link between developed States obligations to provide technical and financial assistance, and the ability of developing States to meet their NDC commitments and adequately respond to the adverse effects of climate change. Article 4(5) of the Paris Agreement reinforces this interdependency, recognising that additional support to developing States "*will allow for higher ambition in their actions*". As such, Article 4(7) of the UNFCCC and Article 4(5) of the Paris Agreement are further implemented through provisions in those treaties that place specific obligations on developed States to provide technical and financial assistance to developing States discussed below in **Chapter VII, Part E**.

D. The Court must balance the need to address climate change with the sustainable development needs of developing countries

176. Action to arrest climate change must be balanced against the need to ensure that we "*leave no one behind*".[188] This means that the obligations of developing States must be considered in the context of their need for ongoing social and economic development.

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[187] Intergovernmental Negotiating Committee for a Framework Convention on Climate Change, *Compilation of Texts Related to Principles, Submitted by the Bureau of Working Group I*, UN DocA/AC.237/Misc.6 (13 August 1991) first session, part I.E.7.

[188] Leave no one behind is the central, transformative promise of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals. It represents the unequivocal commitment of all UN Member States to eradicate poverty in all its forms, end discrimination and exclusion, and reduce the inequalities and vulnerabilities that leave people behind and undermine the potential of individuals and of humanity as a whole.

177. The principle of CBDR-RC as enunciated in Article 4(7) of the UNFCCC explicitly recognises that developing country Parties have different priorities to other country Parties:

> "*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*" (emphasis added).

178. The right of States to develop natural resources within their jurisdiction is closely linked to the economic and social development of developing States. The principle of 'permanent sovereignty over natural resources' (**PSNR**) is today a "*generally accepted principle of international law*".[189] The UNGA initially recognised PSNR in 1952 in a resolution which affirmed the right of member states to "*use and exploit their natural wealth and resources wherever deemed desirable by them for their own progress and economic development*".[190]

179. Born out of the process of decolonisation following World War II,[191] the principle of PSNR prevented the exploitation of developing countries' natural resources by foreign powers after independence, and explicitly recognises a State's right to decide on the use of their own resources for their own benefit. The principle has been affirmed in a number UNGA Resolutions.[192] For example, Resolution 3281 (XXIX) adopted on 12 December 1974 provided:

> "*Every State has and shall freely exercise full permanent sovereignty, including possession, use and disposal, over all its wealth, natural resources and economic activities*".[193]

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189 *United Nations General Assembly, Economic and Social Council, Implications, under international law, of the United Nations resolutions on permanent sovereignty over natural resources, on the occupied Palestinian and other Arab territories and on the obligations of Israel concerning its conduct in these territories – Report of the Secretary-General*, UN Doc A/38/265 (21 June 1983) [12].

190 *Right to exploit freely natural wealth and resources*, GA Res 626 (VII), UN Doc A/RES/626(VII) (21 December 1952).

191 Nico Schrijver, *Sovereignty over Natural Resources: Balancing Rights and Duties* (Cambridge, 1997) 1

192 *United Nations General Assembly, Permanent sovereignty over natural resources*, UN Doc A/RES/1803/XVII (14 December 1962); Charter of Economic Rights and Duties of States, GA Res 3281 (XXIX), UN Doc A/RES/3281(XXIX) (12 December 1974).

193 *Charter of Economic Rights and Duties of States*, GA Res 3281 (XXIX), UN Doc A/RES/3281(XXIX) art 2(1).

180. This genesis of the principle, as a tool for rebalancing economic and social development following colonial rule, is instructive in the interpretation of the principle and its interaction with other sources of international law.

181. The right of States to develop natural resources within their jurisdiction is codified in a range of international law instruments including Article 3 of the CBD and Article 193 of UNCLOS:

181.1 **Article 3, CBD:** "*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*".

181.2 **Article 193, UNCLOS:** "*States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment*".

182. It is also recognised in international human rights treaties,[194] closely linked to the right to development, and recognised in Principle 2 of the Rio Declaration which provides:

> "*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 and developmental 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*".

183. The need for developing countries to prioritise economic and social development is well recognised in the *travaux préparatoires* to the Climate Change Treaties, and the instruments themselves. The Working Group to the UNFCCC highlighted that "*developing countries have as their main priority alleviating poverty and achieving social and economic development*".[195] It also noted that the net emissions of developing

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194 *International Convention on Civil and Political Rights*, opened for signature 16 December 1966, 999 UNTS 171 (entered into force 23 March 1976) art 1.

195 Intergovernmental Negotiating Committee for a Framework Convention on Climate Change, *Compilation of Texts Related to Principles, Submitted by the Bureau of Working Group I*, UN Doc A/AC.237/Misc.6 (13 August 1991) first session, part III.B.4, and 1.

countries "*must follow from their, as yet, relatively low energy consumption to accommodate their development needs*".[196]

184. This differentiation of priorities is recognised too in the text of the UNFCCC. Article 4(10) provides:

> *"The Parties shall, in accordance with Article 10, take into consideration in the implementation of the commitments of the Convention the situation of Parties, particularly developing country Parties, with economies that are vulnerable to the adverse effects of the implementation of measures to respond to climate change. This applies notably to Parties with economies that are highly dependent on income generated from the production, processing and export, and/or consumption of fossil fuels and associated energy-intensive products and/or the use of fossil fuels for which such Parties have serious difficulties in switching to alternatives*".

185. Article 4(10) should be read in conjunction with Article 4(15) of the Paris Agreement which provides:

> "*Parties shall take into consideration in the implementation of this Agreement the concerns of Parties with economies most affected by the impacts of response measures, particularly developing country Parties*".

186. More recently, differentiation was highlighted in the Global Stocktake Decision at COP28 which recognised "*time frames for peaking may be shaped by sustainable development, poverty eradication needs and equity and be in line with different national circumstances*." [197]

187. Tonga is "*heavily dependent on imported fossil fuel to meet* [its] *energy demand*".[198] In addition, as a SIDS with key economic sectors of agriculture, fisheries and tourism, Tonga is particularly vulnerable to the negative impacts of climate change. In its second NDC, Tonga noted that "[i]*rreversible loss and damage from extreme weather events and coastal erosions are putting the Government's poverty alleviation commitments and national development objectives at risk*".[199]

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196 Ibid.

197 *The UAE Consensus* (n 177) [26].

198 *Tonga NDC* (n 15) 4.

199 Ibid viii.

188. The principle of PSNR is not unlimited. There is a well-recognised requirement to exercise this sovereignty in accordance with national environmental policies[200] and principles of international law.[201] This requirement to exercise PSNR in accordance with national environmental policies is reflective of the principle of CBDR-RC.

189. Tonga is committed to the exercise of its right to develop natural resources in accordance with principles of environmental protection. In its second NDC, Tonga outlines an ambition to increase the amount of Marine Protected Areas (**MPAs**) within its EEZ to 30 percent by 2023, as a means for mitigation as well as adaption.[202] This commitment is illustrative of the action that Tonga is taking to protect the natural environment within its jurisdiction.

190. A core element of sustainable development is that it must meet the "*needs of the present without compromising the ability of future generations to meet their own needs*".[203] Tonga's approach to the development of natural resources balances economic and social development, and protection of the environment and is compatible with the realisation of sustainable development. The sustainable development of natural wealth and resources by developing countries, in particular SIDS, is reflective of balancing development and protection in line with notions of equity, including intergenerational equity.[204]

191. CBDR-RC also takes into account the "*specific needs and special circumstances of developing country Parties… especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention*".[205] This approach, which outlines a spectrum of obligations relative to each States' technical and financial resources, provides the flexibility to reflect the changing levels of social and economic development, while also ensuring an upwards ratcheting of ambition on climate mitigation and adaptation. Any alternative interpretation would see inequitable

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200 *Convention on Biological Diversity* (n 151) art 3; *United Nations Convention on the Law of the Sea* (opened for signature 10 December 1982, entered into force 16 November 1994) 1833 UNTS 397, art 193 ('*UNCLOS*').

201 Ibid.

202 *Tonga NDC* (n 15) 24, 28, 30, 36, 53.

203 World Commission on Environment and Development, 'Our Common Future' (1987).

204 Ellen Hey and Sophia Paulini, 'Common but Differentiated Responsibilities' in *Max Planck Encyclopedia of Public International Law* (Oxford University Press) (Web Page) [5], [13], and [19] <https://opil.ouplaw.com/display/10.1093/law:epil/9780199231690/law-9780199231690-e1568>.

205 *UNFCCC* (n 145) art 3(2).

restrictions being placed on some States, in particular developing States, and unfairly fetter their right to sustainable and inclusive development. This approach is also in line with the inalienable right to development,[206] and historical responsibility for emissions.

192. The right to develop natural resources is imperative to the economic and social development of Tonga. Tonga is especially vulnerable to the impacts of climate change, yet Tonga's contribution to climate change is inconsequential.[207] Tonga is at the mercy of changes to our climate, including extreme and unpredictable weather and climate events, which compromise the safety and futures of Tonga's people. The witness evidence provided at **Annex 2** of this submission leaves no doubt that the vulnerability of Tonga to climate-induced events has a damaging effect on economic and social development.[208]

193. In the context of the failure of developed States to fulfil their obligations under the Climate Change Treaties to provide adequate financial and technical assistance to developing countries, the operation of the principle of PSNR is integral to Tonga's ability to meet its human rights obligations, including the right to development. The obligations on developed States to provide technical and financial assistance to developing States discussed below in **Chapter VII, Part E.**

E. Developed States are required to provide technical and financial assistance to developing States to assist in climate mitigation and adaptation initiatives

194. The preamble to the Paris Agreement recognises that "*Parties may be affected not only by climate change, but also by the impacts of the measures taken in response to it*". Developing States cannot be left behind in the transition to net zero and account must be made for the disparity of resources between developed and developing States.

195. In recognising the significant disparity between developed and developing States' contribution to current and historical emissions, both the UNFCCC and the Paris Agreement acknowledge the need to take full account "*of the specific needs and special*

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206 *Declaration on the Right to Development*, GA RES 41/128, UN Doc A/RES/41/128 (4 December 1966), art 1(1) ('*Declaration on the Right to Development*').

207 See **paragraph 162** and **195.**

208 See, for example: 'Etimoni Palu (n 45) [9]-[10] and [11]-[13]; Patelisio Fe'ao (n 47) [16], [17] and [20].

situations of the least developed countries with regard to funding and transfer of technology".[209]

196. During the negotiation of the UNFCCC and the Paris Agreement, there was general acceptance that developing States "*would need additional financial resources and transfer of technology to enable them to meet their obligations under the convention*".[210] Article 4(15) of the Paris Agreement recognises that:

> "*Parties shall take into consideration in the implementation of this Agreement the concerns of Parties with economies most affected by the impacts of response measures, particularly developing country Parties*".

197. Consequently, the UNFCCC and the Paris Agreement impose additional obligations on developed States to provide financial, technical, and capacity-building resources to developing States. Under the UNFCCC, developed States:

197.1 "*shall provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations… They shall also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of implementing measures…*"[211] (emphasis added);

197.2 "*shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation*"[212] (emphasis added);

197.3 "*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*

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209 *Paris Agreement* (n 156) preamble.

210 Intergovernmental Negotiating Committee for a Framework Convention on Climate Change, *Report on the work of its Second session, held at Geneva from 19 to 28 June 1991*, UN Doc A/AC.237/9 (19 August 1991) 14 [54].

211 *UNFCCC* (n 145) art 4(3).

212 Ibid art 4(4).

endogenous capacities and technologies of developing country Parties"[213] (emphasis added); and

197.4 "*shall take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and transfer of technology*".[214]

198. Articles 9 to 12 of the Paris Agreement further support the technical and financial assistance obligations in the UNFCCC. Article 9(1) requires that developed States "*shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation*". The obligation in Article 9(1) is a legal obligation to provide such financial assistance as evidenced using the word "*shall*".[215] The language chosen is mandatory as opposed to suggestive, for example words like "*should*". The language in Article 9(2) further supports this interpretation in providing that other Parties are "*encouraged to provide or continue to provide such support voluntarily*". When read in light of Article 9(2), Article 9(1) directs mandatory action from developed States to provide financial assistance to developing States for mitigation and adaptation efforts, as opposed to the voluntary action expected of other Parties in Article 9(2).

199. Article 9(3), which requires developed States to "*take the lead in mobilizing* climate *finance from a wide variety of sources*", does not create a separate obligation on developed States. Rather, in positioning developed States as leaders in the mobilisation of climate finance, Article 9(3) provides context to the obligation created in Article 9(1).[216] Article 9(3) gives shape to the obligation created in Article 9(1) by identifying that such efforts to mobilise climate finance "*should represent a progression beyond previous efforts*". Consequently, much like the need to make progression over time in respect of a States' NDC commitments, developed States are therefore required to increase their efforts in the provision of technical and financial assistance overtime.[217]

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213 Ibid art 4(5).

214 Ibid art 4(9).

215 Klein (n 164) 244.

216 Ibid 245.

217 *Paris Agreement* (n 156) arts 4(5), 9(3), 11(1) and 11(3).

200. Article 6 of the UNFCCC promotes education, training, and public awareness. States are required to promote the "*training of scientific, technical, and managerial personnel*"[218] and cooperate in "*the development and implement[ation] of education and training programmes … in particular for developing countries*".[219]

201. Further, Article 11 of the Paris Agreement provides for ongoing capacity-building to enhance the capacity and ability of developing States to take effective climate action. Under Article 11(3), States should cooperate to enhance capacity in developing States to implement the Paris Agreement. Article 10(2) further reinforces this position requiring that States "*shall strengthen cooperative action on technology development and transfer*". Finally, Article 12 creates a legal obligation on States to "*cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information*".

202. Capacity building is fundamental to ensure that citizens of developing States develop the skills necessary to participate in a just transition to net zero. Training and education, alongside other capacity-building measures to transfer skills and knowledge to enhance human resources is required to address climate change impacts and ensure the economic development of developing States is not compromised. The witness evidence provided by Mr 'Etimoni Palu at **Annex 2** demonstrates that local business owners see the need for re-training and upskilling the workforce. Commenting on the need to change and adapt fishing practices in Tonga,[220] he notes that *"without training to do other jobs"* his employees *"may need to move overseas to find employment*".[221] Further, Laitia Fifita of the Tonga Meteorological Service, states in his evidence that "*Tonga needs the financial, technical and human resources to carry out this research and understand the changes in the climate, weather and environment which impact the lives of the Tongan people*".[222]

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218 *UNFCCC* (n 145) art 6(a)(iv).

219 Ibid art 6(b)(ii).

220 'Etimoni Palu (n 45) [10].

221 Ibid [13].

222 Laitia Fifita, Witness Statement (15 March 2024), Annex 2 [13].

203. As already noted, climate change is "*a common concern of humankind*"[223] and therefore cooperation amongst members of the international community is critical in addressing the adverse impacts of climate change. Conservation and management of shared resources and the environment "*must be based on shared interests, rather than the interests of one party*".[224] Capacity-building support for developing States, including SIDS, for implementing and scaling up mitigation and adaptation measures is crucial to ensuring these States are not left behind as part of the transition to net zero.

204. It is clear that developed States have continued to fall short of these obligations. The UAE Consensus following COP28 confirmed developed States have not met their technical and financial assistance obligations, in particular providing USD 100 billion climate finance per year to developing States:

204.1 "[n]*oting with deep regret that the goal of developed country Parties to mobilize jointly USD 100 billion per year by 2020 in the context of meaningful mitigation actions and transparency on implementation* *was not met in 2021*" (emphasis added);[225]

204.2 "[n]*oting 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*" (emphasis added);[226] and

204.3 "[u]*rges developed country Parties to fully deliver, with urgency, on the USD 100 billion per year goal through to 2025, in the context of meaningful mitigation actions and transparency on implementation*" (emphasis added).[227]

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223 *Paris Agreement* (n 156) preamble.

224 *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)* [2014] ICJ Rep 226, 457 [13] (Separate Opinion of Judge Ad Hoc Charlesworth).

225 *The UAE Consensus* (n 177) [80].

226 Ibid [81].

227 Ibid [85].

205. To date, Tonga has received USD 32.3 million in total financing from the Green Climate Fund.[228] The financing and adaptation gap is widening. There is a noticeable gap between the capabilities of developed and developing States to deliver a comprehensive response to climate change. Equally, developing States are largely reliant on developed States meeting their obligations in the Climate Change Treaties to provide the relevant financial and technical assistance. The timely transfer of financial, technical, and human resources to assist in mitigation and adaptation initiatives is essential to ensure developing States can participate as part of the international community in the transition to net zero.

206. The references to obligations on "*developed*" States to provide financial assistance and technological transfer make clear that it is a standalone obligation on each developed State to take action. Tonga appreciates the aid it has received from other States and donors to date to assist in climate mitigation and adaptation initiatives. This is an important step forward in Tonga's climate response; however, more must be done to support developing States through access to finance and technology. Obligations on developed States relating to the transfer of technology, financial assistance, and capacity building are also reflected in UNCLOS[229] and the CBD[230] (discussed below at **Chapter VII, Part D and E**).

F. States are obligated to protect the climate system for the benefit of present and future generations

207. The international community's understanding of climate science and the impacts of anthropogenic greenhouse gas emissions on the climate system continues to evolve. In the case of climate change, there is often a time lag between the release of emissions and the latent adverse effects on the environment. Consequently, climate change has the capacity to impact both present and future generations. The Request directs the Court to consider the notions of intra- and inter-generational equity in the context of the Climate Change Treaties.

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228 'Kingdom of Tonga', *Green Climate Fund*, (Web Page) https://www.greenclimate.fund/countries/tonga.

229 UNCLOS (n 200) arts 202 and 203.

230 CBD (n 200) arts 8, 12, 16 – 18, and 20(4).

208. Intragenerational equity is concerned with equity between people of the same generation.[231] Intergenerational equity requires "*the needs of future generations be considered alongside the needs of the present generation*".[232]

209. In *Legality of the Threat or Use of Nuclear Weapons*, in his Dissenting Opinion, Judge Weeramantry stated:

> "*When incontrovertible scientific evidence speaks of pollution of the environment on a scale that spans hundreds of generations, this Court would fail in its trust if it did not take serious note of the ways in which the distant future is protected by present law*"[233] (emphasis added).

210. Judge Weeramantry's remarks in the context of the lasting effects of the use of nuclear weapons, are equally relevant to the ongoing and intergenerational effects of climate change caused by anthropogenic greenhouse gas emissions.

211. Further, in *Legality of the Threat or Use of Nuclear Weapons*, the Court stressed that "*the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn*" (emphasis added).[234] The Court reaffirmed that position in *Gabčíkovo-Nagymaros Project*.[235]

212. Within the Climate Change Treaties, Article 3(1) of the UNFCCC reaffirms the importance of protecting the climate system for future generations:

> "*In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, inter alia, by the following:*
>
> > "*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…*"[236] (emphasis added).

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231 United Nations Environment Programme, *Intragenerational equity* (Web Page) <https://leap.unep.org/knowledge/glossary/intragenerational-equity>.

232 Margaretha Wewerinke-Singh, Ayan Garg, Shubhangi Agarwalla, 'In Defence of Future Generations' (2023) 34(3) *European Journal of International Law* 665.

233 *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion (Judgment)* [1996] ICJ Reps 226, 241-242 [29].

234 Ibid.

235 *Gabčikovo-Nagymaros Project (Hungary/Slovakia) (Judgment)* [1997] ICJ Rep 7, [53], [112], [140] ('*Gabčikovo-Nagymaros Project*').

236 *UNFCCC* (n 145) art 3(1).

213. The international community has repeatedly recognised the relevance of climate change to future generations in COP decisions and UNGA resolutions. For example, in the UAE Consensus adopted at COP28, the COP stressed:

> "*... the importance of global solidarity in undertaking adaptation efforts, including long-term transformational and incremental adaptation, towards reducing vulnerability and enhancing adaptive capacity and resilience, as well as the collective wellbeing of all people, the protection of livelihoods and economies, and the preservation and regeneration of nature, for current and future generations, in the context of the temperature goal referred to in Article 2 of the Paris Agreement ...*"[237] (emphasis added).

214. Similarly, in the latest version of the UNGA's resolution on *Protection of global climate for present and future generations of humankind* (A/RES/78/153), the UNGA recognised that "*in undertaking its work, the United Nations should promote the protection of the global climate for the well-being of present and future generations of humankind*".[238]

215. Article 3 of the UNFCCC should therefore be interpreted as requiring States to consider present and future generations in implementing their obligations under the Climate Change Treaties.[239]

CHAPTER VIII. LAW OF THE SEA, MARITIME ENTITLEMENTS & STATEHOOD

A. The Court must have regard to the law of the sea in determining the obligations of States in respect of anthropogenic climate change and climate change-induced sea-level rise

216. The world's oceans together constitute the Earth's largest ecosystem and are deeply interconnected with the planet's climate systems. Given their scale, significance, and the unique and novel challenges they face, the world's oceans are a focal point in global efforts to address anthropogenic climate change. Thus, in considering the obligations of States in view of anthropogenic climate change and its connection with the ocean, the Court must have regard to the existing framework regulating the law of the sea.

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237 *The UAE Consensus* (n 177) [61].

238 *Protection of global climate for present and future generations*, GA Res 78/153, UN Doc A/Res/78/153 (19 December 2023) 6.

239 *UNFCCC* (n 145) art 2.

217. UNCLOS, to which Tonga is a State Party, sets out a comprehensive regulatory framework in respect of the world's oceans. Relevantly, UNCLOS establishes obligations of States Parties in respect of the marine environment, including obligations to protect and preserve.[240]

218. By operation of customary principles of treaty interpretation and the text of the convention itself, UNCLOS must be read as consistent with the operation and context of the Climate Change Treaties.

219. UNCLOS explicitly contemplates operating harmoniously with other instruments of international law, in particular with respect to environmental issues. By force of Article 293, UNCLOS is to be applied alongside other rules of international law to the extent those rules are not incompatible with UNCLOS. Article 237 recognises the potential for, and provides a carve-out in respect of, future overlapping instruments in service of its objects in relation to Part XII, stating that:

> "*The provisions of this Part are without prejudice to the specific obligations assumed by States under special conventions and agreements concluded previously which relate to the protection and preservation of the marine environment and to agreements which may be concluded in furtherance of the general principles set forth in this Convention*"[241] (emphasis added).

220. Article 31(3)(c) of the VCLT requires that treaties be interpreted taking into account "*any relevant rules of international law applicable in the relations between parties*" and the context of those relations.[242] To that end, it must be observed that the Climate Change Treaties post-date UNCLOS by at least a decade, in the case of the UNFCCC, and by over 30 years in the case of the Paris Agreement. From this it may be inferred that, to the extent the content of the Climate Change Treaties may extend to the world's oceans, that content would have been drafted taking into account the existence of a comprehensive framework agreement relating to the law of the sea. Viewed in light of Article 237, UNCLOS as a framework agreement, is facilitative of the objects of the

240 *UNCLOS* (n 200) Part XII.

241 Ibid art 237.

242 *VCLT* (n 141) art 31(3).

Climate Change Treaties as they pertain to the world's oceans and marine environments.

221. Further, the subject matter of UNCLOS is relevant to the Court's consideration of the Request insofar as it regulates the conduct of States Parties in respect of the protection and preservation of the marine environment from anthropogenic greenhouse gas emissions. In particular, Part XII of UNCLOS is concerned with, *inter alia*, protection and preservation of the marine environment, including the prevention, reduction and control of "*pollution of the marine environment from any source*".[243]

222. Article 1(1)(4) of UNCLOS defines "*pollution of the marine environment*" by reference to the act of "*introduction by man, directly or indirectly, of substances or energy into the marine environment*" (emphasis added) and the result, or likely result, of:

> "*such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities*"[244].

223. On a textual reading, this definition is sufficiently broad to extend to the *act* of direct or indirect emission of anthropogenic greenhouse gases by States Parties, and to the well-documented and negative *results* that such emissions have upon the marine environment, as more fully described in **Chapter IV, Part C**. Support for this interpretation can also be found elsewhere: an extension of the definition of "*pollution of the marine environment from any source*" to include greenhouse gas emissions would accord with the object and purpose of UNCLOS pursuant to Article 31(1) of the VCLT. Furthermore, the forward-looking and open-ended language adopted in UNCLOS renders available a presumption that the States Parties to UNCLOS intended to give its terms a meaning or content capable of evolving over time.[245] Such an interpretation endorsing the concept of "*pollution*" for the purposes of Part XII of UNCLOS was also widely adopted by participants in the International Tribunal for the Law of the Sea

243 *UNCLOS* (n 200) art 192.

244 Ibid art 1(1)(4).

245 *Dispute regarding Navigational and Related Rights* (n 147) [64].

Request for an Advisory Opinion Submitted by the Commission of Small Island States on Climate Change and International Law.[246]

224. Applying this interpretation, Tonga submits the Court must consider that UNCLOS relevantly requires that States Parties:

224.1 protect and preserve the marine environment from the adverse effects of climate change;[247] and

224.2 in so doing, prevent, reduce, and control their emission of greenhouse gases, particularly in circumstances where such emissions are likely to result in deleterious effects being inflicted upon the marine environment.[248]

225. Tonga further submits that the Court must also consider that Article 194 of UNCLOS expressly stipulates that the extent of this latter obligation for a State Party is limited to "*the best practicable means at their disposal and in accordance with their capabilities*".[249] This statement recognises and reinforces the principle of CBDR-RC,[250] which, so far as it qualifies the obligations of States Parties under UNCLOS, likewise qualifies the obligations of States in respect of anthropogenic climate change.

B. Developed States are required under UNCLOS to provide technical and financial assistance to developing States to assist in climate mitigation and adaptation initiatives

226. The principle of CBDR-RC is fundamental to the object and purpose of UNCLOS. The preamble to UNCLOS explicitly identifies that the objects of the convention:

> "*will contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole*

246 See for example, *Timor-Leste's Verbatim Record ITLOS Advisory Opinion on Climate Change* (n 22) 7; *Australia's Verbatim Record ITLOS Advisory Opinion on Climate Change* (n 124) 6; 'Verbatim Record' *Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law* (International Tribunal for the Law of the Sea, 13 September 2023, ITLOS/PV.23/C31/6), 21 (People's Republic of Bangladesh); 'Verbatim Record' *Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law* (International Tribunal for the Law of the Sea, 25 September 2023, ITLOS/PV.23/C31/18), 29 (United Kingdom); 'Verbatim Record' *Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law* (International Tribunal for the Law of the Sea, 20 September 2023, ITLOS/PV.23/C31/14), 32 (The European Union).

247 *UNCLOS* (n 200) art 192.

248 Ibid art 194(1).

249 Ibid.

250 The principle of CBDR-RC is discussed above in detail at **Chapter VII, Part C**.

and, in particular, the special interests and needs of developing countries …" (emphasis added).

227. In addition to stipulating that the positive obligations in Part XII are limited to the means available to a State Party, the principle of CBDR-RC also finds expression in Part XII, Section 3. In that Section, Articles 202 and 203 serve to "*ease the burden which the law could impose upon States not adequately equipped to meet those obligations*".[251] Article 202 requires States Parties to provide assistance to developing States in furtherance of the objects of Part XII of UNCLOS. Article 203 requires international organisations to afford preferential treatment to developing States in respect of certain matters, including technical and financial assistance.

228. Article 202(a) provides that "*States*", being, contextually, any States Parties that are not "*developing States*", "*shall … promote programmes of scientific, education, technical and other assistance to developing States*" in furtherance of the obligations set out in Articles 192 and Article 194. Article 202(a) provides a non-exhaustive list of forms that such assistance can take, including training, facilitation, and capacity-building assistance similar to those required under the Climate Change Treaties, as more fully described in **Chapter VII, Part E**.

229. Article 202(b) and (c) require States to provide assistance, "*especially to developing States*", for the minimisation of the effects of major incidents which may cause serious pollution of the marine environment, and for the purposes of preparing environmental assessments, respectively.[252]

230. Article 203 establishes that developing States "*shall*", for the purposes of prevention, reduction, and control of pollution of the marine environment or minimisation of the effects thereof, receive preferential treatment from international organisations in respect of:

230.1 the allocation of appropriate funds and technical assistance; and

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251 Myron H. Nordquist et al. (eds), *United Nations Convention on the Law of the Sea* (Martinus Nijhoff Publishers, 2013) Vol I, 107.

252 *UNCLOS* (n 200) art 202(b) and (c).

230.2 the utilisation of the specialised services of those organisations.[253]

231. Particularly when read in light of the Climate Change Treaties and their respective regimes relating to the provision of resources and assistance to developing States, Part XII, Section 3:

231.1 exhibits a clear recognition of the varied and limited capabilities of developing States to fulfil the imperative of protecting and preserving the marine environment from the adverse effects of climate change; and

231.2 acknowledges that, in order for those imperatives to be fulfilled in an equitable manner, flows of assistance from developed States and international organisations must be facilitated.

232. When the Court considers the existing obligations under UNCLOS in the context of discerning States' obligations in respect of anthropogenic climate change, it must also have regard to the principle of CBDR-RC and the recognised need for flows of assistance to developing States which underpin those existing obligations.

C. Climate change-induced sea-level rise may impact a State's maritime entitlements

233. UNCLOS also addresses the delimitation of maritime boundaries and the exercise of a coastal State's sovereignty and sovereign rights in respect to maritime areas under its jurisdiction. Concluded in 1982, however, UNCLOS was not drafted in contemplation of the danger of sea-level rise which now threatens to compromise the permanency of maritime boundaries of some States, the occurrence of which is considered in greater detail in **Chapter IV, Part C**. The phenomenon of sea level rise puts at risk the territorial integrity of coastal States.

234. Tonga submits that an interpretation of UNCLOS to the effect that maritime entitlements are ambulatory in nature[254] is inconsistent with growing State and regional

253 Ibid art 203.

254 David D. Caron, 'When law makes climate change worse: rethinking the law of baselines in light of a rising sea level' (1990) 17 *Ecology Law Quarterly* 621, 635–636.

practice in support of a view that once established pursuant to UNCLOS, maritime entitlements are not subject to any such reduction.

235. Such regional practice among Pacific Islands Countries and Territories (**PICTs**) has been undertaken for over a decade:

235.1 in 2010, **PIF** asserted that once the maritime boundaries are legally established, there "*could be a united regional effort that establishes baselines and maritime zones so that areas could not be challenged and reduced due to climate change and sea level rise*".[255]

235.2 in 2015, Tonga was one of seven States represented amongst the Polynesian Leaders Group which adopted the Taputapuatea Declaration on Climate Change, which acknowledged PICS "*whose area is calculated according to emerged lands and permanently establish the baselines in accordance with the UNCLOS, without taking into account sea level rise*"[256] (emphasis added);

235.3 in 2021, the PIF, of which Tonga is one of 18 member States,[257] adopted the Declaration on Preserving Maritime Zones in the Face of Climate Change-Related Sea-Level Rise (**Maritime Declaration**) which relevantly declared "*that maintaining maritime zones established in accordance with the Convention, and rights and entitlements that flow from them, notwithstanding climate change-related sea-level rise, is supported by both the Convention and the legal principles underpinning it*";[258] And

235.4 there is also an extensive body of domestic legislation and policies implemented by PICTs purporting to fix maritime boundaries and reaffirm the view that

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255 C. Pratt and H. Govan, *Our Sea of Islands, Our Livelihoods, Our Oceania. Framework for A Pacific Oceanscape: A Catalyst for Implementation of Ocean Policy*. Pacific Islands Forum Secretariat (November 2010) <http://www.forumsec.org/wp-content/uploads/2018/03/Framework-for-a-Pacific-Oceanscape-2010.pdf>.

256 Polynesian Leaders Group, 'Polynesia Against Climate Threats' (Declaration, 16 July 2015) <https://www.samoagovt.ws/wp-content/uploads/2015/07/The-Polynesian-P.A.C.T.pdf>.

257 The Pacific Island Forum comprises Australia, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Kiribati, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

258 The Pacific Islands Forum, 'Declaration on Preserving Maritime Zones in the Face of Climate Change-Related Sea-Level Rise' (Declaration, 6 August 2021) 3 <https://www.forumsec.org/wp-content/uploads/2021/08/Declaration-on-Preserving-Maritime.pdf>.

climate change-induced sea-level rise ought not to reduce maritime entitlements.[259]

236. Tonga reaffirms this position as reflected in the PIF Maritime Declaration. Tonga submits that in the context of climate change-related sea-level rise, States' baselines and outer limits of the maritime zones therefrom, should be preserved.

D. Climate change-induced sea-level rise may impact statehood considerations

237. The consequences of sea-level rise for the sovereignty of States are not limited to maritime entitlements. Continued sea-level rise also threatens to undermine territorial integrity of coastal and small island States and thus their very statehood. By extension, threats to, or a complete loss of, statehood as a result of sea-level rise poses risks to the inhabitants of affected States and their enjoyment of the right to a nationality, and further exposes those inhabitants to a heightened risk of statelessness. As a matter related to sea-level rise and maritime entitlements, the ILC is also considering the impacts of climate-induced sea-level rise on statehood.[260]

238. On 9 December 2023, Tonga supported the PIF's *2023 Declaration on the Continuity of Statehood and the Protection and the Protection of Persons in the Face of Climate Change-Related Sea-Level Rise*, which stated:

> "*WE, THE LEADERS OF THE PACIFIC ISLANDS, THEREFORE*
>
> ***Affirm** that international law supports a presumption of continuity of statehood and does not contemplate its demise in the context of climate change-related sea-level rise,*
>
> ***Declare** that the statehood and sovereignty of Members of the Pacific Island Forum will continue, and the rights and duties inherent thereto will be maintained, notwithstanding the impact of climate change-related sea-level rise, …*".[261]

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259 See, generally, Pacific Islands Forum, *Submission to the International Law Commission on the Sub-Topics of Sea-Level Rise in Relation to Statehood and to the Protection of Persons Affected by Sea-Level Rise* (31 December 2021) <https://legal.un.org/ilc/sessions/73/pdfs/english/slr_pif.pdf>.

260 International Law Commission, *Sea-level rise in relation to international law: Second issues paper by Patrícia Galvão Teles and Juan José Ruda Santolaria, Co-Chairs of the Study Group on sea-level rise in relation to international law*, 73rd sess, UN Doc A/CN.4/752 (19 April 2022).

261 Pacific Islands Forum, *2023 Declaration on the Continuity of Statehood and the Protection of Persons in the Face of Climate Change-Related Sea-Level Rise*, 9 December 2023 (emphasis in original).

239. Tonga submits that in circumstances of the complete loss of a State's territory and displacement of its population, the presumption of continuity of statehood ought still to apply.

CHAPTER IX. THE HUMAN RIGHTS AFFECTED BY CLIMATE CHANGE

240. States' obligations under the Climate Change Treaties should be interpreted taking into account relevant rules of international law, which are inclusive of instruments of international human rights law.[262]

241. The nexus between climate change and the protection of human rights is recognised in the preamble of the Paris Agreement:

> "*Acknowledging that climate change is a common concern of humankind, 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*".

242. It is clear from this wording that the Parties to the Paris Agreement recognised the relevance of human rights and the obligations set out in the Paris Agreement. Those obligations should therefore be interpreted as being compatible with the realisation of human rights.

243. Many international courts and tribunals have considered the relationship between human rights and climate change.[263] For example, in the Inter-American region, the Inter-American Court of Human Rights has recognised "*the existence of an undeniable relationship between the protection of the environment and the realization of other human rights*".[264] The Court held that "*climate change has a wide range of implications for the effective enjoyment of human rights, including the right to life, health, food,*

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262 *VCLT* (n 141) art 31(2)-(3).

263 See for example, Human Rights Committee, *Daniel Billy et al.* Views adopted by the Committee under article 5 (4) of the Optional Protocol, concerning communication No. 3624/201 Adopted by the Committee at its 135th session (27 June – 27 July 2022), on 22 September 2022. (*'Torres Strait Islanders case'*)

264 *State obligations in relation to the environment in the context of the protection and guarantee of the rights to life and to personal integrity: interpretation and scope of articles 4(1) and 5(1) in relation to articles 1(1) and 2 of the American Convention on Human Rights (Advisory Opinion)* (Inter-American Court of Human Rights, Series A No 23, 15 November 2017) [47] (*'IACtHR Advisory Opinion'*).

water, housing and self-determination".[265] For its part, the UN Human Rights Committee held that "*environmental degradation, climate change and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life*."[266]

244. Tonga acknowledges recent statements on the right to a healthy environment. Resolution 76/300 of the UNGA recognises "*the right to a clean, healthy and sustainable environment as a human right*" which is "*related to other rights and existing international law*".[267] It also provides that the promotion of this right "*requires the full implementation of the multilateral environmental agreements under the principles of international environmental law*".[268] The normative character and the precise content of the right to a clean, healthy and sustainable environment is not settled,[269] however, the resolution serves to strengthen the connectedness of human rights and the Climate Change Treaties, without the creation of a new right or obligation.

245. Whilst it is Tonga's submission that a wide range of human rights are likely to be impacted by anthropogenic greenhouse gas emissions, this submission will focus on the following rights:

245.1 the right to life;

245.2 realisation of economic, social, and cultural rights;

245.3 the right to development; and

245.4 the protection of vulnerable groups.

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265 Ibid [54].

266 *Torres Strait Islanders case* [8.3].

267 *The human right to a clean, healthy and sustainable environment*, GA Res 76/300, UN Doc A/RES/76/300, (28 July 2022) [1]-[2].

268 Ibid [3].

269 UN General Assembly Official Records, 76th sess, 97th plenary meeting, UN Doc A/76/PV.97 (28 July 2022). See, for example, the interventions of New Zealand, US, Belarus, Japan, India, Poland, and Canada.

A. The Impact of Climate Change on the Right to Life

246. The right to life is comprised of two separate and related obligations on States: no person can be arbitrarily deprived of their life (negative obligation) but also, in light of the obligation to guarantee the free and full exercise of human rights, it requires States to adopt all appropriate measures to protect and preserve the right to life (positive obligation). The right to life is a right to from which no derogation is permitted. This is common across regional systems.[270]

247. Under Article 3 of the UDHR, read with Article 2, and under Article 6 the ICCPR, States have the obligation to ensure the right to life and to exercise due diligence[271] to protect the lives of individuals against threats not attributable to the State itself.[272] This is a positive obligation.

248. In being obliged to adopt all appropriate measures to protect and preserve the right to life, States must take measures to prevent significant harm or damage to the environment. Any harm to the environment that may constitute a violation of the right to life must be considered "*significant harm*".[273] To protect the right to life, States must, at a minimum, regulate, supervise and monitor, require and approve environmental impact assessments, establish contingency plans, and mitigate when environmental damage has occurred.[274] Accounting for the level of risk, States "*must regulate activities that could cause significant environmental damage in a way that reduces any threat to the rights to life and to personal integrity*".[275]

249. Further, the European Court of Human Rights has considered the responsibility of States where natural disasters threaten people's right to life. In *Budayeva and Others v*

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270 Human Rights Committee, *General Comment No. 36* - Article 6: right to life, CCPR/C/GC/36 (3 September 2019) [2]; Human Rights Committee, *General Comment No. 6: Article 6 (Right to Life)*, Adopted at the Sixteenth Session of the Human Rights Committee (30 April 1982) [1].

271 Due diligence is discussed above at **Chapter VII, Part B**. The reasoning in that Chapter applies equally in relation to the protection of human rights in the context of climate change.

272 Human Rights Committee, *Views: Communication No 2728/2016*, UN Doc CCPR/C/127/D/2728/2016 (24 October 2019) 1 [9.4] ('*Teitiota v Australia*'); Human Rights Committee, *Views: Communication No 3076/2017*, UN Doc CCPR/C/128/D/3076/2017 (11 March 2020) ('*Martinez v Colombia*'): "*States parties are thus under a due diligence obligation to take reasonable, positive measures that do not impose disproportionate burdens on them in response to reasonably foreseeable threats to life originating from private persons and entities whose conduct is not attributable to the State*".

273 *IACtHR Advisory Opinion* (n 264) [140].

274 Ibid [145].

275 Ibid [149].

Russia[276] (**Budayeva**), the Court found that States have a positive obligation to ensure that there is a "*legislative and administrative framework designed to provide effective deterrence against threats to the right to life*" and that those frameworks must be properly implemented.[277] The Court also noted that the scope of States' positive obligations "*would depend on the threat and the extent to which one or the other risk is susceptible to mitigation*".[278]

250. As a country susceptible to extreme weather events, including cyclones, hurricanes and volcanic activity, Tonga has a detailed legal and administrative framework which has at its core the protection of the right to life when it is threatened by disasters.[279] However, Tonga's ability to effectively mitigate risks which threaten the right to life, is informed by the fulfilment of obligations on developed States to contribute financial and technical assistance in accordance with the Climate Change Treaties (as discussed above at **Chapter VII, Part E**).

B. The Impact of Climate Change on Economic, Social and Cultural Rights

Right to work

251. The right to work is found in Article 23(1) and (2) of UNDHR , which provides:

> "*Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment.*
>
> *…*
>
> *Everyone, without any discrimination, has the right to equal pay for equal work*".

252. Article 6 of the ICESCR provides:

> "*The States Parties to the present Covenant recognize the right to work, which includes the right of everyone to the opportunity to gain his living by work which*

276 *Budayeva and Others v Russia* (2008) Eur Court HR 1.

277 Ibid [192].

278 Ibid [137].

279 See for example, Tonga's Strategic Roadmap for Emergency and Disaster Risk Management 2021 – 2023 (Tonga Strategic Emergency and Disaster Risk Management Roadmap (2021 - 2023)), Emergency Management Act 2007, National Emergency Management Act, and National Emergency Management Plan.

he freely chooses or accepts, and will take appropriate steps to safeguard this right".

253. The right of everyone to the enjoyment of just and favourable conditions of work ensures fair remuneration, safe and healthy working conditions, equal opportunity and rest, leisure, and reasonable limitation of working hours. Developing States are afforded a margin of discretion as to the extent and progression of the realisation of the right to work, together with other economic rights, with reference to human rights and the national economy.[280] Such progressive realisation is similar to the notion of CBDR-RC, discussed in the context of the Climate Change Treaties, whereby the implementation of the right to work reflects a developing States' level of resources and capacity.

254. Based on best available science, there is a strong likelihood that Tonga will continue to be negatively impacted by severe climate-induced weather events such as tropical cyclones, hurricanes, and droughts. As set out in **paragraph 32** above, Tonga's economy is highly dependent on climate sensitive sectors such as tourism, agriculture, and fisheries, which together account for almost 50 percent of GDP. The agricultural sector for example, employs a third of the labour force[281] and supports most of the population for subsistence. The lasting impact of the 2022 tsunami is reflected in the witness evidence of 'Etimoni Palu, a local business owner, whose business has suffered since the Eruption and associated tsunami.[282] Further, the frequency and severity of these events requires Tonga to spend significant public funds on the repair and recovery of housing and infrastructure,[283] which in turn limits its ability to invest in training and education essential to upskilling its workforce to participate in new jobs as part of the transition to net zero. The result is a population with limited skills to participate in jobs required in the transition, and which is reliant on jobs which are consistently negatively impacted by the effects of climate change.

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280 *International Covenant on Economic, Social and Cultural Rights*, opened for signature 16 December 1966, 999 UNTS 3 (entered into force 3 January 1976) art 2(3).

281 Tonga Statistics Department, 'Labour Force Survey' (Web Page, 2018) <https://tongastats.gov.to/survey/labour-force-survey/>.

282 'Etimoni Palu (n 45) [6]-[10].

283 (n 29).

255. As at 2016, Tonga recorded an unemployment rate of 16.4 percent, which increases to 34.8 percent with the inclusion of subsistence workers.[284] The witness evidence of 'Etimoni Palu makes clear the concern of Tongan people about the future and security of traditional forms of work such tuna fishing, and the need for upskilling to avoid mass-unemployment.[285] It follows that without external financial and technical assistance to train and transition its workforce, there is a strong likelihood that Tonga's unemployment rate will increase, together with the percentage of its population living in poverty.

Right to take part in cultural life

256. Article 27 of the UNDHR and Article 15 of ICESCR provides that people have "*the right freely to participate in the cultural life of the community*" and the "*right to the protection of the moral and material interests resulting from any scientific, literary or artistic production*". It follows that threats to the environment occasioned by climate change are, by extension, threats to the aspects of culture which are tied to the environment. These threats are well-documented. In its Sixth Assessment Report, the IPCC stated:

> "*Climate change has caused widespread adverse impacts and related losses and damages to nature and people (high confidence). Losses and damages are unequally distributed across systems, regions and sectors (high confidence). Cultural losses, related to tangible and intangible heritage, threaten adaptive capacity and may result in irrevocable losses of sense of belonging, valued cultural practices, identity and home, particularly for Indigenous Peoples and those more directly reliant on the environment for subsistence (medium confidence)*"[286] (emphasis added).

257. As detailed in **paragraph 103** above, Tongans are Ocean People. The ocean feeds Tongans, is their mode of transportation, and is part of their deep-seated culture.[287] In the South Pacific, an important maxim is, "*land is life, without land, there is no life*". It is on this land where generations of indigenous communities have practiced and

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284 Tonga Statistics Department, 'Population and Housing Census' (Web Page, 2016) <https://tongastats.gov.to/census-2/population-census-2/#:~:text=In%202016%2C%20the%20total%20population,or%20520%20people%20per%20year>.

285 'Etimoni Palu (n 45) [10] and [13].

286 Intergovernmental Panel on Climate Change, *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC, 2023) 51..

287 His Majesty King Tupou VI (n 118).

preserved their tradition. Tonga has existed for years with its people, its language, and their culture and traditions being passed from generation to generation. The very existence of this small island, its people, and its surrounding ocean has been the heritage of the Tongan people, encompassing their home and identity as Tongans and passed from generation to generation.

258. Tongan culture is comprised of Tangible Cultural Heritage (**TCH**), which includes *"historical sites, buildings, monuments, artwork, traditional items… and traditional flora"*,[288] and Intangible Cultural Heritage (**ICH**), which includes *"oral tradition and expressions including language...; [p]erforming arts; [s]ocial practices, rituals and festive events; [k]nowledge and practices concerning nature and the universe;[and t]raditional craftmanship"*.[289] TCH and ICH are intrinsically linked: when physical places, things and resources are lost, the practice of traditional knowledge, practices and rituals becomes harder and may in some cases be lost completely.[290]

259. Tonga's history is rich with stories of Tongan people and their ancestors relying on the seas for navigation, on the land for sustenance, and the agricultural produce and marine life for their livelihoods. Tonga has a strong oral tradition, with oral practices still conducted in many Tongan villages. Genealogies, proverbs, poetry, and other forms of literature are often passed down and elaborated through generations by word of mouth.

260. Most of the villages in Tonga are situated along the coastal zone. As is set out in **paragraph 34** above, inter-island migration is increasing as Tongans seek out better opportunities. This movement not only destroys the life and vibrancy of villages as young people migrate, it also destroys the intangible cultural heritage. In Tongan culture, the stories that form our history and culture are linked to places, and often told only in those places, as young people are shown the ways of their ancestors.[291]

261. Ambitious collective action which acknowledges the differentiated capabilities of States will be crucial in promoting the right to take part in cultural life and ensuring that

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288 Semisi Tongia (n 34) [4].

289 Pulotu Ma'u (n 46) [4].

290 Ibid [11].

291 Ibid [9]-[10]. See also: Semisi Tongia (n 34) [12]-[13].

the cultures of those most exposed to the adverse effects of climate change are not extinguished.

Impacts of climate displacement on the exercise of certain human rights

262. The far-reaching impacts of climate change and disasters on human security and mobility displaces more than 50,000 Pacific people every year, due to climate and disaster related events.[292] Displacement resulting from the adverse effects of climate change impacts the practical realities of day-to-day life in Tongan communities and prevents citizens from fully realising their basic human rights.[293] For example, extreme weather events, storm surges, and sea-level rise have significant impacts on human life including mortality, food and water security, health, housing, land and other property, livelihoods and cultural heritage:[294]

262.1 **the right to adequate housing**:[295] The observed and projected impact of climate change has several direct and indirect implications for the enjoyment of the right to adequate housing, including through its impact on infrastructure and settlements. Inappropriately located and poor-quality housing are often vulnerable to extreme events, including floods and sea-level rise.[296] In Tonga, the most common form of deprivation relates to household items including furniture and electrical goods, with a third of adults and children are unable to replace broken or worn-out household items.

262.2 **the right to food and water:**[297] Storm surges, coastal flooding, and sea-level rise may impact the availability and accessibility of food and cause disruption in food production, reductions in crop yields, increased food prices and food insecurity.[298] Further, the salinisation of the freshwater lens due to sea-level rise

292 His Majesty King Tupou VI (n 118).

293 Ian Fry, Special Rapporteur, *Report on the promotion and protection of human rights in the context of climate change*, UN Doc A/78/255 (28 July 2023) [58]

294 Ibid.

295 *Universal Declaration of Human Rights*, GA Res 217A (III), UN GAOR, UN Doc A/810 (10 December 1948) art 25 ('*UDHR*').

296 See, for example: Latiume Kaufusi (n 79) [13]; Patelisio Fe'ao (n 47) [13]; Sioka Noa (n 119) [12].

297 *Universal Declaration of Human Rights* (n 295).

298 Latiume Kaufusi (n 79) [14].

in SIDS and in low lying coastal areas can affect the right to water of the local population;[299] and

262.3 **the right to participate in cultural life:**[300] As an ocean kingdom, Tonga's connection with its land and oceans is fundamental to its cultural identity.[301] The right to participate in cultural life is considered above.

C. The Impact of Climate Change on the Right to Development

263. Article 1(1) of the UN Declaration on the Right to Development (**UNDRD**) describes the right to development as "*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*".[302] Further, the right to development and the principle of sovereignty over natural wealth and resources are recognised as interdependent in Article 1(2), affirming that neither can be fully realised without the other.

264. Article 3 of UNDRD describes the responsibilities of States to respect the right to development:

264.1 *first*, States are responsible for the "*creation of national and international conditions favourable to the realisation of the right*";[303]

264.2 *second*, the "*realisation of the right… requires full respect for the principles of international law concerning friendly relations and cooperation among States*";[304] and

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299 International Law Commission, *'Sea-level rise in relation to international law*, 73rd sess, UN Doc. A/CN.4/752 (19 April 2022),) [252(d)]. See also: Latiume Kaufusi (n 79) [15].

300 *UDHR* (n 295) art 27.

301 The connection between Tonga's cultural identity and the oceans is discussed above at **Chapter IV, Part** E.

302 The right to development is further recognised in regional human rights system including Articles 32 and 33 of the Charter of the Organization of American States (1948), Article 26 of the American Convention on Human Rights (1969), Article 22 of the African Charter on Human and Peoples' Rights (1981), Article 37 of the Arab Charter on Human Rights (2004), and paragraph 37 of the ASEAN Human Rights Declaration 2012.

303 *Declaration on the Right to Development* (n 206) art 3(1).

304 Ibid art 3(2).

264.3 *third*, States have "*a duty to cooperate with each other in ensuring development and eliminating obstacles to development*".[305]

265. Sustainable development is inextricably linked to the right to development, with the 2030 Agenda being described as "*a child of the right to development*".[306] The 2030 Agenda is a framework which has at its core balancing the eradication of social and economic inequalities the protection of the natural environment.

266. Climate-related weather events undermine the ability of both recently independent countries and SIDS such as Tonga to take steps to address existing social and economic inequalities by causing significant structural damage and threatening the safety of Tongan people. The existential threats of climate change undermine the sovereignty of the people of Tonga over its natural resources, which are affected by climate change over which Tonga has no control.

267. As set out in **paragraph 35** of this submission, Tonga sustains an average USD 76.81 million total average loss due to disasters each year. This equates to 18.2 percent of GDP.[307] This is increased and compounded by the impact of climate change, and the intensification of weather phenomenon like cyclones, storm surges and volcanic eruptions. As set out in **paragraphs 36 to 39 and 42** of these submissions, Ian caused a financial impact of around USD 40 million, Gita caused a financial impact of around USD 150 million, Harold caused financial impacts of around USD 111 million, and the Eruption and tsunami caused financial impacts of around USD 182 million.

268. The realisation of the human rights of people in SIDS is inherently connected the ability and capacity of a SIDS to adapt to the impacts of climate change. As noted in **paragraph 35** of this submission, the projected yearly cost of adaptation for coastal protection in Tonga is estimated to be between one percent and four percent of Tonga's projected GDP by 2040.[308]

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305 Ibid art 3(3).

306 Zeid Ra'ad Al Hussein, United Nations High Commissioner for Human Rights, 'Opening Statement' (Speech, Panel discussion on the promotion and protection of the right to development: Commemoration of the 30th anniversary of the Declaration on the Right to Development, 15 June 2016)

307 United Nations, Economic and Social Commission for Asia and the Pacifc (ESCAP) (n 32) 3.

308 *Climate Change and Disaster Management Pacific Possible Background Paper* (n 32).

269. As a SIDS, Tonga must balance ensuring the availability of financial, technical, and human resources to deliver essential social and infrastructure services to its people, and the need to use those same resources to mitigate the impacts of climate change and invest in adaptation measures. The crippling impact of climate change on the Tongan economy, and the complete disproportion of the cost in light of the contribution of Tonga to the world's anthropogenic emissions, only underscores the inequity of the situation.

270. Tonga also notes that the principle of CBDR-RC as enunciated in Article 4(7) of the UNFCCC explicitly recognises that "*economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties*".

271. Article 4(1) of the Paris Agreement also recognises that equitable access to sustainable development and poverty alleviation means that the peaking of greenhouse gas emissions may take longer for developing country Parties:

> "*In 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, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty*" (emphasis added).

272. In order to fulfil its obligations towards its people, Tonga's anthropogenic emissions may need to grow. Tonga reiterates **Chapter VII, Part E** of these submissions in relation to the importance of the obligations of developed States in the Paris Agreement to provide financial and technical assistance, transfer of technology and support for education and training to ensure that Tonga's economic and social development is conducted in line with the world's common climate goals.

D. The Protection of Vulnerable Groups

273. The connection between climate change and its impact on human wellbeing is increasingly visible. The basic and essential rights of the People of the Kingdom of Tonga, as enshrined in the Act of the Constitution of Tonga [Cap.1.01] and international

law, are and will be affected by, the impacts of climate change. These rights include the right to life, right to land, food, water, and culture.

274. Vulnerable groups in Tonga stand to be the most impacted. These vulnerable groups include the poor, elderly, women, children, and persons with disabilities.

Gender equality

275. The IPCC recognises the importance of considering gender perspectives in the context of climate change, including in the Fifth Assessment Report (**AR5**), noting that "*there are significant gender dimensions to impacts, adaptation, and vulnerability*" and that "*climate change contributes to perpetuating existing gender inequalities*". AR5 further notes that "*gender dimensions of vulnerability derive from differential access to the social and environmental resources required for adaptation*".[309]

276. As outlined in **paragraph 29** of these submissions, Tonga's population is approximately 51 percent female. In 2018, Data from CARE's 2018 Tropical Cyclone Gita Kingdom of Tonga Rapid Gender Analysis indicates that those risks increase further for "*people living with disabilities; the elderly or widowed or those with chronic illnesses; young children; pregnant or breastfeeding women; female heads of households; single mothers, particularly those with a large number of dependents; and people diverse sexual orientations and gender identities*".[310]

277. Recognising the particular impacts of climate change on women, the Pacific Forum Leaders Declaration on Achieving Gender Equality through the 2050 Strategy for the Blue Pacific Continent commits Pacific leaders to implementing gender equality through a number of actions which include:

> "*...viii. meaningful participation of all Pacific peoples, particularly women and girls in all their diversity, in climate change action including access to climate finance, disaster risk management, the protection of persons affected by climate*

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309 Intergovernmental Panel on Climate Change, 'Further Assessment Report, Cross-chapter box on gender and climate change' in *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2014) 105.

310 CARE, 'Tropical Cyclone Gita Kingdom of Tonga Rapid Gender Analysis: Sub-focus on Shelter and Food Security and Livelihoods' (Report, 29 February 2018) 5 <https://www.careevaluations.org/wp-content/uploads/RGA_tonga_tc_gita_2018.pdf>.

change-related sea-level rise, climate security and the sustainable management and use of oceans and river resources for development… and

...xi. Ensuring the safety and protection of all Pacific peoples particularly women and girls in all their diversity including climate security, and by taking measures to end all forms of human exploitation including human trafficking…..".[311]

278. The special vulnerability and role of women in Tonga is evidenced in Ms. Sioka Noa's witness statement (see **Annex 2**).[312] Ms Noa outlines the additional burdens that women undertake to increase preparedness in the community and protect people as much as possible from climate-related weather events. Tonga will need additional support from the international community to ensure gender equality is not weakened in the context of climate change.

Children's rights

279. Children make up 35 percent of the Tonga population, and around 25 percent of the population globally. Children are particularly vulnerable to the impacts of climate change due to their developmental needs and physiological characteristics.[313] The vulnerability of children is recognised in the preamble to the Convention on the Rights of the Child (**CRC**).

280. In Tonga, children's rights are impacted by the occurrence of severe climate-induced events which not only impact their home life, but also negatively affects their access to education and mental wellbeing. The evidence of Patelisio Fe'ao, a teacher in the Ha'apai island group recalls that *"[w]hen the school is affected by a serious weather event like a tropical cyclone, [the staff] normally have to close the school for a period of time*". He goes on, "*normally the school is closed for at least three days.*"[314] Concerning the lasting impacts of climate change on the children of Ha'apai, Mr Fe'ao says that "*when we speak about climate change and its impacts in Tonga, I can see in*

311 Pacific Islands Forum, '2050 Strategy for the Blue Pacific Continent' (2022) <https://www.forumsec.org/wp-content/uploads/2022/08/PIFS-2050-Strategy-Blue-Pacific-Continent-WEB-5Aug2022.pdf>.

312 Sioka Noa (n 119) [7]-[9].

313 Office of the United Nations High Commissioner for Human Rights, *Analytical study in the relationship between climate change and the full and effective enjoyment of the rights of the Child* (A/HRC/35/13, 4 May 2017).

314 Patelisio Fe'ao (n 47) [10].

their faces that they are scared, worrying about what will happen and what their futures will look like."[315]

281. In its General Comment No. 26, the United Nations Committee on the Rights of the Child stated that certain rights set out in the Convention are particularly threatened by the impacts of climate change or have an important role in improving the protection of children's rights.[316] These rights include, inter alia the best interests of the child, the right to life, survival and development, the right to an adequate standard of living and the right to education.

282. Tonga submits that States' obligations to act in the best interests of the child, respect and ensure the rights contained in the CRC is relevant to the interpretation of the Climate Change Treaties, having regard to the principle of intergenerational equity.[317] States must take urgent action to protect the climate systems from the adverse effects of climate change for both present and future generations.

PART B

283. This section responds to Part B of the question put to the Court, namely:

> "*What are the legal consequences under these obligations for States where they, by their acts and omissions, have caused significant harm to the climate system and other parts of the environment, with respect to:*
>
> *i. States, including, in particular, small island developing States, which due to their geographical circumstances and level of development, are injured or specially affected by or are particularly vulnerable to the adverse effects of climate change?*
> *ii. Peoples and individuals of the present and future generations affected by the adverse effects of climate change?*".

CHAPTER X. STATE RESPONSIBILITY

284. In responding to Question (a) of the Request, **Chapter V through Chapter IX** have identified the obligations of States with respect to climate change, and the extent of those obligations (generally, the "**Climate Change Obligations**"). This Chapter

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315 Ibid [16].

316 Committee on the Rights of the Child, *General Comment No. 26 on Children's rights and the environment with a special focus on climate change* CRC/C, 93rd sess, UN Doc CRC/C/GC/26 (22 August 2023).

317 Intergenerational equity is discussed in detail above at **Chapter VII, Part F**.

responds to Question (b) of the Request and set outs the consequences that result from a States' failure to comply with those obligations.

285. State responsibility under international law extends to a State's breach of Climate Change Obligations. Under customary international law, the principle of State responsibility holds that a State is responsible for breaches of international law attributable to that State.[318]

286. This Court has long recognised the special character of breaches which concern the international community as a whole. As the Court opined in *Barcelona Traction*:

> "*In particular, an essential distinction should be drawn between the obligations of a state towards the international community as a whole, and those arising vis-à-vis another State … By their very nature, the former are the concern of all States. In view of the importance of the rights involved, all States can be held to have a legal interest in their protection; they are obligations erga omnes*."[319]

287. Accordingly, all States, and, in particular SIDS and LDCs, share a collective interest in the execution of States' Climate Change Obligations, noting climate change is a phenomenon with global consequences. It is against this backdrop that State responsibility for breach of Climate Change Obligations must be considered.

288. The ILC sought to codify the rules of State responsibility in the Draft Articles on Responsibility of States for Internationally Wrongful Acts (**ARSIWA**).[320] The ARSIWA provide a framework through which to consider State responsibility, and one which this Court has relied upon many times.[321]

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318 *Responsibility of States for Internationally Wrongful Acts* (n 171) art 1. See also, *Corfu Channel (United Kingdom v Albania) (Merits)* [1949] ICJ Rep 4, 23; *Gabčíkovo-Nagymaros Project* (n 235) 38 [47].

319 *Barcelona Traction, Light and Power Company, Limited (Judgment)* [1970] ICJ Rep 3, [33].

320 International Law Commission, *Report of the International Law Commission on the Work of Its Fifty Third Session*, UN GAOR, 56th sess, Supp No 10, UN Doc A/56/10 (2001) preamble [1] ('*Commentary to the ARSIWA*').

321 See, for example: *Gabčíkovo-Nagymaros Project* (n 235) 38 [47], 39 [50], 54 [79] and 55 [83]; *Armed Activities on the Territory of the Congo* (Democratic Republic of Congo v Uganda) (Merits) [2005] ICJ Rep 168 [160]; *Application of the Convention on the Prevention and Punishment of the Crime of Genocide* (Bosnia and Herzegovina v Serbia and Montenegro) (Merits) [2007] ICJ Rep 43; Legal Consequences of the Separation of the Chagos Archipelago from Mauritius in 1965 (Advisory Opinion) [2019] ICJ Rep 95 [177].

289. Under the ARSIWA, State responsibility is framed by reference to a "*breach of an international obligation of the* State".[322] This terminology covers the breach of both treaty obligations and non-treaty obligations.[323]

290. This Court has also recognised that State responsibility may flow from a refusal to fulfil treaty obligations,[324] and may endure irrespective of the absence of material damage.[325]

291. In considering the primary legal consequences of States for failure to comply with their obligations in respect of climate change, the Court should extend considerations of State responsibility and, in so doing, should have regard to the framework of rules established in the ARSIWA, as further described below.

292. State responsibility for breach of Climate Change Obligations should give rise to certain consequential obligations. The ARSIWA prescribe a number of specific consequences apt to apply to a breach of Climate Change Obligations.

293. Article 29 of the ARSIWA provides for a "*continued duty of performance*", and prescribes that:

> "*The legal consequences of an internationally wrongful act under this Part do not affect the continued duty of the responsible State to perform the obligation breached*".

294. This principle accords with positions this Court has previously adopted. In *Gabčíkovo-Nagymaros Project* case, the Court sought to uphold the rule *pacta sunt servanda* as reflected in Article 26 of the VCLT and held that continuing material breaches by parties to a treaty did not prejudice the continuing operation of that treaty, nor the obligations prescribed therein.[326]

295. Relatedly, the ARSIWA provides that in continuing to perform its international obligations in spite of a breach of those obligations, States are under an additional

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322 *Responsibility of States for Internationally Wrongful Acts* (n 171) art 2(b).

323 *Commentary to the ARSIWA* (n 320) art 2.

324 See for example, *Gabčíkovo-Nagymaros Project* (n 235) 7 [8]-[9].

325 *Rainbow Warrior Arbitration (Case concerning the difference between New Zealand and France concerning the interpretation or application of two agreements, concluded on 9 July 1986 between the two States and which related to the problems arising from the Rainbow Warrior Affair), UNRIAA, 1990, vol. XX*, 215, [110]; *Commentary to the ARSIWA* (n 320) art 2.

326 *Gabčíkovo-Nagymaros Project* (n 235) 68 [114], 78 [142].

obligation to cease the act or omission[327] giving rise to its breach. Article 30 provides that:

> "*The State responsible for the internationally wrongful act is under an obligation:*
>
> *(a) to cease that act, if it is continuing;*
>
> *(b) to offer appropriate assurances and guarantees of non-repetition, if circumstances so require*".

296. The Court should make clear that any breach by a State of its Climate Change Obligations or refusal to fulfil those obligations ought not to prejudice the continuing duty of that State to satisfy those obligations. The breach of an international obligation in respect of climate change should, therefore, give rise to:

296.1 a *positive* obligation to continue performance of the relevant Climate Change Obligation; and

296.2 a *negative* obligation to cease any continuing breach of that obligation.

A. State responsibility for breach of a State's Climate Change Obligations should give rise to obligations of reparation

297. This Court has long held that reparation "*is the indispensable complement of a failure to apply a convention*".[328]

298. This principle is recognised in Article 31 of the ARSIWA, which provides that:

> "*The responsible State is under an obligation to make full reparation for the injury caused by the internationally wrongful act*".

299. Importantly, Article 31(2) stipulates that the notion of injury "*includes any damage, whether material or moral, caused by the internationally wrongful act of a State*". This broad formulation is intentionally inclusive, "*leaving it to the primary obligations to specify what is required in each case*".[329]

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327 *Commentary to the ARSIWA* (n 320) art 30.

328 *Factory at Chorzów (Germany v Poland) (Jurisdiction)* [1927] PCIJ (ser A) No. 9, 21.

329 *Responsibility of States for Internationally Wrongful Acts* (n 171) art 31; *Commentary to the ARSIWA* (n 320) art 31.

300. Article 31 is informed by the principles laid down in *Factory at Chorzow (Merits)*.[330] In that judgment, the Permanent Court of International Justice ("**PCIJ**") distilled "*the essential principle contained in the actual notion of an illegal act*", being that reparation must "*as far as possible, wipe out all the consequences of the illegal act and reestablish the situation which would, in all probability have existed if that act had not been committed*".[331] This "*restitution in kind*" was, however, only the "*general definition of reparation*",[332] and the PCIJ went on to note that there were likely to be circumstances in which such restitution would not be possible. The PCIJ therefore circumscribed the notion of "*compensation*", stating that:

> "[T]*he award, if need be, of damages for loss sustained which would not be covered by restitution in kind or payment in place of it—such are the principles which should serve to determine the amount of compensation due for an act contrary to international law*".[333]

301. It is on the basis of this distinction that Articles 35 and 36 of the ARSIWA prescribe the forms of "*restitution in kind*" and *"compensation*" as appropriate forms of reparation for injury. Under Article 35, a State is obliged to make restitution to the extent it "*is not materially impossible*" and "*does not involve a burden out of all proportion to the benefit deriving from restitution instead of compensation*". Where, however, restitution in full is not possible, Article 36 prescribes that a State is obliged to "*compensate for the damage caused thereby, insofar as such damage is not made good by restitution*", such compensation to be determined by reference to the amount necessary to "*cover any financially assessable damage including loss of profits insofar as it is established*".

302. The ARSIWA also provide for a third and supplementary form of reparation, being satisfaction. Article 37 provides that satisfaction may take the form of an acknowledgement, expression of regret, formal apology, or other appropriate form, but is similarly limited by a standard of proportionality and must not take on a form humiliating to the responsible State.

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330 *Commentary to the ARSIWA* (n 320) art 31.

331 *Factory at Chorzów (Germany v Poland) (Merits)* [1927] PCIJ (ser A) No. 13, 47.

332 *Commentary to the ARSIWA* (n 320) art 31.

333 *Factory at Chorzów (Germany v Poland) (Merits)* [1927] PCIJ (ser A) No. 13, 47.

B. States are responsible for, and have consequential obligations in respect of, breaches of Climate Change Obligations, particularly in respect of specially affected States

303. As **Chapter V through Chapter IX** have identified, the existing body of primary obligations regarding climate change recognise different standards for developed and developing States. In discerning obligations, these submissions have invited the Court to extend considerations of the CBDR-RC principle. For the reasons that follow, Tonga submits that such considerations should also be extended in determining the responsibility of States for failing to comply with Climate Change Obligations.

304. The varied circumstances and vulnerabilities of States are acknowledged in the very premise of Question (b), which directs attention to the geographical circumstances and level of development of SIDS.

305. SIDS, and other groups of States such as LDCs, are likely to be disproportionately affected by a State's failure to comply with its Climate Change Obligations. Whereas developed States may have the financial or technical means to undertake mitigation or adaptation measures, or the geographical means to facilitate migration or avoid the effects of climate change altogether, SIDS and LDCs are much more likely to bear the consequences of a failure to uphold Climate Change Obligations. The limited resources available to such States, exacerbated by the risks and realised losses of climate change, may also limit the means by which SIDS can vindicate their rights under international law when those are violated by other States. As such, in the context of the Climate Change Treaties, there exist "*special rules*" of State responsibility.

306. The constrained capacity of SIDS may limit the means and extent by which they are able to execute their obligations as a responsible State. For example, considered in light of a SIDS' limited financial resources and the strain of climate change-induced pressures, the obligation to make "*full reparation*" in the form of restitution in kind may indeed "*involve a burden out of all proportion to the benefit deriving from restitution instead of compensation*".

307. This vulnerability, and the disproportionate risk and scale of loss for SIDS should be reflected in the nature, extent, and manner of reparations. Accordingly, the Court must ensure that:

307.1 the avenues by which States may vindicate their rights as States affected by a failure to comply with climate change obligations facilitate access to justice for SIDS;

307.2 the obligations of SIDS, as specially affected States, are modified to faithfully uphold the principles of CBDR-RC; and

307.3 the obligations of developed States, particularly in respect of obligations of reparation, should take into account the relative distribution of resources between the responsible State and affected States, particularly where the affected States are specially affected States such as SIDS.

308. Tonga submits that the Loss and Damage Fund may serve as a valuable tool through which to realise the first and third of these objectives. Tonga welcomes the historic agreement reached at COP27 in Sharm el-Sheik to provide "*loss and damage*" funding for vulnerable countries hit hard by climate disasters.

309. The Sharm el-Sheik Implementation Plan recognises the:

> "*... growing gravity, scope and frequency in all regions of loss and damage associated with the adverse effects of climate change, resulting in devastating economic and non-economic losses, including forced displacement and impacts on cultural heritage, human mobility and the lives and livelihoods of local communities, and underlines the importance of an adequate and effective response to loss and damage*".[334]

310. At COP28 in Dubai, Parties agreed to operationalise the Loss and Damage Fund.[335] The Loss and Damage Fund is designed to:

> "*to assist developing countries that are particularly vulnerable to the adverse effects of climate change in responding to economic and non-economic loss and*

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334 United Nations Framework Convention on Climate Change, *Decision 1/CP.27: The Sharm el-Sheikh Implementation Plan*, UN Doc FCCC/CP/2022/10/Add.1 (17 March 2023, adopted 20 November 2022), [22].

335 Conference of the Parties, United Nations Framework Convention on Climate Change, *Operationalization of the new funding arrangements, including a fund, for responding to loss and damage referred to in paragraphs 2–3 of decisions 2/CP.27 and 2/CMA.4*, UN Doc FCCC/CP/2023/L.1-FCCC/PA/CMA/2023/L.1 (29 November 2023), preamble [17].

damage associated with the adverse effects of climate change, including extreme weather events and slow onset events".

"[be] *complementary to humanitarian actions taken immediately after an extreme weather event…*".[336]

311. While the Loss and Damage Fund is a significant step forward towards meeting the financial needs of SIDS, there remains an enormous funding gap. United Nations Environment Programme (**UNEP**) research shows that finance for adaptation falls significantly short. To date, industrialised countries have pledged USD 655 million to the Fund, with a further USD 115 million in financing to mobilise additional funds for loss and damage. The 2022 Adaptation Gap Report[337] indicates that international adaptation finance flows to developing countries are five to 10 times below estimated needs and will need over USD 300 billion per year by 2030. This figure does not include estimates for loss and damage, which are estimated at over USD 200 billion per year by 2023.

312. Loss and damage finance needs are closely connected to the ability of SIDS in particular to mitigate and adapt to the adverse effects of climate change. Tonga joins the community of SIDS in urging developed States and high-income developing market economies to ramp up cooperation around climate change, and to commit to long term, sustainable funding. Tonga also seeks urgent admission of vulnerable SIDS countries to the Loss and Damage Fund, and other climate finance mechanisms. Further development of the fund and its integration into a regime contemplating the obligations of reparation of responsible States represents an opportunity to meaningfully mobilise financial flows, particularly from developed States to whom the greater share of contribution of greenhouse gas emissions may be attributed, to specially affected States.

CHAPTER XI. CONCLUSION

313. It is 2024 now and we see no substantive progress on climate action. This Request presents a critical opportunity to take meaningful action in clarifying States' obligations

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336 Conference of the Parties, United Nations Framework Convention on Climate Change, *Operationalization of the new funding arrangements, including a fund, for responding to loss and damage referred to in paragraphs 2–3 of decisions 2/CP.27 and 2/CMA.4*, UN Doc FCCC/CP/2023/L.1-FCCC/PA/CMA/2023/L.1 (29 November 2023), [8].

337 United Nations Environment Programme, 'Adaptation Gap Report 2022: Too Little, Too Slow – Climate adaptation failure puts world at risk' (Report, 2022).

to protect the climate systems from the adverse effects of anthropogenic greenhouse gas emissions for both present and future generations. This is a plight for change, a plight for action, and a plight for survival.

314. Tonga underscores the importance of adaptation measures, sustainable development, international cooperation, financial support, and technology transfer to address climate challenges.

315. Tonga hopes the Court will fully avail itself of this opportunity and leave a legacy on progressive climate action.

Nuku ʻalofa, The Kingdom of Tonga, 15 March 2024

Respectfully submitted

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The Government of the Kingdom of Tonga

Hon. Huʻakavameiliku

Prime Minister of the Kingdom of Tonga

ANNEXURES