INTERNATIONAL COURT OF JUSTICE

OBLIGATIONS OF STATES IN RESPECT OF CLIMATE CHANGE

(REQUEST FOR ADVISORY OPINION)

Written statement of the Republic of Kiribati

22nd March 2024

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I. INTRODUCTION

1. Pursuant to the Order of the President of the Court of 20 April 2023, the Republic of Kiribati hereby submits its written statement on the request for an advisory opinion contained in UN General Assembly Resolution 77/276, adopted by consensus on 29 March 2023.

2. The Republic of Kiribati is amongst the most vulnerable nations to climate change on Earth. As a nation, Kiribati faces considerable risk from climate variability and sea-level rise. The potential risk of permanent inundation, and land and marine ecosystem degradation link climate change intrinsically with national development in Kiribati.[1] In the context of global greenhouse gas (GHG) emissions, Kiribati's per capita CO_2 emissions represent only 0.0002% of global emissions. [2]

3. The ratification of the Paris Agreement by Kiribati in 2016 signalled the renewed commitment by Kiribati to act on climate change, including to build resilience and adaptive capacity of the atoll nation as well its people and to address the cause of climate change through mitigation actions based on Kiribati's national circumstances.

4. The written statement is structured as follows; following (I) this introduction, the statement addresses (II) matters relating to the jurisdiction of the Court to render the requested advisory opinion and the admissibility of the request; (III) the Republic of Kiribati's situation with respect to climate change; (IV) the Republic of Kiribati's submissions on the questions put forward to the Court; and (V) Conclusion.

II. JURISDICTION AND ADMISSIBILITY OF THE REQUEST

A. The Court has Jurisdiction to Render the Requested Advisory Opinion

5. Article 65(1) of the ICJ Statute establishes the power of the Court to give an advisory opinion. It provides that the Court "*may give an advisory opinion on any legal question"* at the request of a body authorized by the Charter of the United Nations (UN Charter) to

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1 World Bank and Asian Development Bank (ADB), *Pacific Climate Risk Country Profile Kiribati* (2021) *available at* https://climateknowledgeportal.worldbank.org/sites/default/files/country-profiles/15816WB_Kiribati%20Country%20Profile-WEB.pdf.

2 Government of the Republic of Kiribati, United Nations Framework Convention on Climate Change (UNFCCC), in accordance with of the Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104, at Art. 4, ¶ 12, *Intended Nationally Determined Contribution* (2016) *available at* https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Kiribati%20First/INDC_KIRIBATI.pdf; *see also*, Republic of Kiribati, *Nationally Determined Contribution (Revised)*, Nov. 2022, *available at* https://unfccc.int/NDCREG.

request it. Article 96 of the UN Charter complements that provision, by authorizing the General Assembly to request an advisory opinion of the Court *"on any legal question".*

6. The UN General Assembly regularly addresses different matters relating to climate change, including in its annual resolution on the "Protection of the global climate for present and future generations", the latest of which is resolution 77/165 adopted by consensus on 14 December 2022.[3] Consistent with these points, the two questions asked by the UN General Assembly are clearly "legal questions", one focusing on the "obligations of States under international law" and the other on "the legal consequences under these obligations".

7. Furthermore, Article 96(1) of the UN Charter and Article 65(1) of the ICJ Statute regulate the competence of the UNGA to request an advisory opinion from the ICJ. Accordingly, the Court may issue an advisory opinion if the following two requisites are satisfied: (a) the request for an advisory opinion was submitted by an authorized body competent to submit the request- in this case the UNGA and (b) the request concerns a legal question.

8. In the case at hand, Kiribati considers that both requisites are satisfied, and considering its consensus adoption and the fact that 132 countries co-sponsored the Resolution A/RES/77/276, there is no evident of disagreement on this point.

B. There are no Compelling Reasons for the Court to Exercise Discretion not to Render the Requested Advisory Opinion

9. Under the terms of Article 65(1) of the ICJ Statute, the Court "*may give*" an advisory opinion. These terms have been consistently interpreted by the Court as giving it discretion to render or not the opinion requested.[4] The ICJ itself has never declined to render the advisory opinion requested. According to the Court, its reply to a request for an opinion "*represents its participation in the activities of the UN and, in principle,*

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[3] G.A. Res. 77/165, U.N. Doc. A/RES/77/165 (Dec. 14, 2022), on the report of the Second Committee (A/77/443/Add. 4, at ¶ 11) (Protection of Global Climate for Present and Future Generations of *Humankind* [sic]).

[4] *See* Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion, 2004 I.C.J. 136, ¶ 44 (July 9) [hereinafter 2004 I.C.J. 136]; in accordance with International Law of the Unilateral Declaration of Independence in Respect of Kosovo, Advisory Opinion, 2010 I.C.J. 403, ¶ 29 (July 22); Legal Consequences of the Separation of the Chagos Archipelago from Mauritius in 1965, Advisory Opinion, 2019 I.C.J. 97, ¶ 63 (Feb. 25) [hereinafter 2019 I.C.J. 97].

should not be refused".[5] Only "*compelling reasons would justify refusal of such a request*".[6]

10. Kiribati submits that there are compelling reasons for the Court to issue an advisory opinion. This are identified in Resolution A/RES/77/276; whose preambular paragraphs highlight, among others, the following compelling reasons:

> "*Recognizing* that climate change is an unprecedented challenge of civilizational proportions, and that the well-being of present and future generations of humankind depends on our immediate and urgent response to it,
>
> *"*Recalling its resolution 77/165 of 14 December 2022 and all its other resolutions and decisions relating to the protection of the global climate for present and future generations of humankind, and its resolution 76/300 of 28 July 2022 on the human right to a clean, healthy, and sustainable environment,
>
> *"Recalling also* its resolution 70/1 of 20 December 2015 entitled "Transforming our world: the 2030 Agenda for Sustainable Development.
>
> *"Recalling further* Human Rights Council resolution 50/9 of 7 July 2022 and all previous resolutions of the Human Rights Council on human rights and climate change, and Human Rights Council resolution 48/13 of 8 October 2021, as well as to ensure gender equality and empowerment of women,
>
> *"*Noting with *profound alarm* that emissions of greenhouse gases continue to rise despite the fact that all countries, in particular developing countries, are vulnerable to the adverse effects of climate change and that those are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the least developed countries and small island developing States, are already experiencing an increase in such effects, including persistent, drought, and extreme weather events, land loss and degradation, sea level rise, coastal erosion, ocean acidification, and the retreat of mountain glaciers, leading to displacement of affected persons and further threatening food security, water availability and livelihoods, as well as efforts to eradicate poverty in all its forms and dimensions and achieve sustainable development,
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> *"Noting* with *utmost concern* the scientific consensus, expressed inter alia in the reports of the Intergovernmental Panel on Climate Change, including that anthropogenic emissions of greenhouses gases are unequivocally the dominant cause of the global warming observed since

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[5] 2004 I.C.J. 136, *supra* note 4, ¶ 44; *see also* 2019 I.C.J. 97, *supra* note 4, ¶ 65.

[6] Western Sahara, Advisory Opinion, 1975 I.C.J. 12, ¶ 23 (Oct. 16) [hereinafter 1975 I.C.J. 12]; Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 14 (July 8); 2004 I.C.J. 136, *supra* note 4; in accordance with International Law of the Unilateral Declaration of Independence in Respect of Kosovo, Advisory Opinion, 2010 I.C.J. Reports 403, ¶ 30 (July 22); *see also* 2019 I.C.J. 97, *supra* note 4, ¶ 65.

> the mid-20th century, has caused widespread adverse impacts and related losses and damages to nature and people, beyond natural climate variability, and that across sectors and regions the most vulnerable people and systems are observed to be disproportionately affected,
>
> "Acknowledging that as temperature rise, impacts from climate and weather extremes, as well as slow onset events, will pose an ever-greater social, cultural, economic and environmental threat, (…)"

11. The Court's response to the first question would assist the General Assembly in establishing 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.

12. The Court's response to the second question is necessary for the General Assembly to determine the legal consequences under international law that flow from States which, by their acts and omissions, have caused significant harm to the climate system and other parts of the environment with respect to vulnerable States and with respect to people and individuals for present and further generations.

13. The Court may exercise its discretion not to render the advisory opinion to a State on the following grounds:

    1. if the request is an attempt to circumvent the principle of consent;[7]
    2. if there is lack of sufficient information and evidence for the Court to form its opinion;[8]
    3. if the before the court is one which the court has already rendered its opinion[9];
    4. if matters are pending before another international court or tribunal and concerning the constitutive treaty of the latter.[10]

14. There are no compelling reasons for the Court to decline to exercise the advisory jurisdiction which the Charter and the Statute having been conferred upon it. The request

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7 1975 I.C.J. 12, *supra* note 6, ¶ 33; *see also* 2019 I.C.J. 97, *supra* note 4, ¶ 85.

8 *Id*.

9 *Supra* notes 4 – 6 and accompanying text. *Contra*, 2019 I.C.J. 97, *supra* note 4, ¶ 81 ('The Court observes that the principle of *res judicata* does not preclude it from rendering an advisory opinion. When answering a question submitted for an opinion, the Court will consider any relevant judicial or arbitral decision. In any event, the Court further notes that the issues that were determined by the Arbitral Tribunal in the *Arbitration regarding the Chagos Marine Protected Area* […] are not the same as those that are before the Court in these proceedings').

10 *Supra* note 6, 1975 I.C.J. 12, ¶ 46 (citing Status of Eastern Carelia, Advisory Opinion, 1923 P.C.I.J. Ser. B No. 5, at 29); *see also* 2019 I.C.J. 97, *supra* note 4, ¶ 71.

is not an attempt to circumvent the principle of consent; there is sufficient information and evidence for the Court to form its opinion on the questions before it; the questions are not among those which the Court has already rendered an opinion about, and there are no questions pending before another international court or tribunal and concerning the constitutive treat of the latter. The Court's exercise of its advisory jurisdiction will not circumvent any principle of international law, and it will furnish the General Assembly with legal tools to further environmental protection and climate change mitigation and adaptation.

15. There is wealth of information and evidence before the Court enabling it to form its opinion on the questions before it. There is a clear scientific consensus on climate change reflected in the reports of the Intergovernmental Panel on Climate Change (**IPCC**), particularly in the Summaries for Policymakers, which are approved by consensus, line-by-line, by all 195 member States of the IPCC.[11] The cumulative emissions since at least 1850 of greenhouse gases which have caused climate change, and its adverse effects are also empirically well established. The information and evidence about the impact of climate change on Kiribati is particularly clear and present, as will be elaborated in this submission.

16. Only this Court has the general competence to provide the type of advice needed by the UN General Assembly, as made clear by the scope of the question, adopted by consensus, which goes far beyond the interpretation of any single treaty (or constitutive instrument). While there are pending requests for advisory opinions before the International Tribunal for the Law of the Sea (ITLOS)[12] and the Inter-American Court of Human Rights

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11 Intergovernmental Panel on Climate Change (IPCC), Principles Governing IPCC Work, *Appendix A: Procedures for the preparation, review, acceptance, adoption, approval and publication of IPCC Reports*, §4.4, at 8 (Oct. 2013), *available at* https://www.ipcc.ch/site/assets/uploads/2018/09/ipcc-principles-appendix-a-final.pdf (Appendix to the Principles Governing IPCC Work contains the procedures for the preparation, review, acceptance, adoption, approval and publication of IPCC reports and other materials relevant to methodologies. These Procedures for the Preparation, Review, Acceptance, Adoption, Approval and Publication of IPCC Reports were adopted at the Fifteenth Session of the IPCC (San Jose, 15-18 April 1999) and amended at the Twentieth Session (Paris, 19-21 February 2003), Twenty-First Session (Vienna, 3 and 6-7 November 2003), Twenty-Ninth Session (Geneva, 31 August-4 September 2008), Thirty-Third Session (Abu Dhabi, 10-13 May 2011), Thirty-Fourth Session (Kampala, 18-19 November 2011) and Thirty-Fifth Session (Geneva, 6-9 June 2012). and the Thirty-Seventh Session (Batumi, 14-18 October 2013)) [hereinafter Principles Governing IPCC Work].

12 Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law (Request for Advisory Opinion submitted to the Tribunal) (No. 31), *pending*, Case No. 31, Order of Dec. 16, 2022, 31 ITLOS Rep. 4, *available at*: https://www.itlos.org/en/main/cases/list-

(ICtHR),[13] these should not desist the Court from accepting the request of the General Assembly. The UN General Assembly is a distinct body from the entities seeking the other advisory opinions (the Commission of Small Island States on Climate Change and International Law (COSIS) for the ITLOS request and Chile and Colombia for the ICtHR request). The questions raised in those other initiatives are much narrower and specific than the general ones before this Court. That these processes are distinct from the present one before this Court is reflected also by the approved request by COSIS from the ITLOS tribunal to take part in the Court proceedings.

17. To conclude: the Republic of Kiribati submits that the Court has jurisdiction to render the requested advisory opinion and that are no compelling reasons for the Court to deny the request. In fact, the Republic of Kiribati firmly believes that there are compelling reasons for the Court to issue the advisory opinion as requested. The court's response to the questions would assist the General Assembly in establishing the obligations of States under international law to ensure the protection of the climate system and other parts of the environment, and to comprehend the legal consequences under international law that follow violations of those obligations, thereby contributing to protecting the the climate system, the environment, and affected peoples and individuals.

III. CLIMATE CHANGE AND ITS IMPACT ON THE REPUBLIC OF KIRIBATI

18. This section addresses (a) specific consensus on climate change and its impact in general; and (b) the specific impacts of climate change on Kiribati.

A. There is a Scientific Consensus Regarding Climate Change, its Cause and Impacts

19. Preambular paragraph 9 of Resolution 77/276 recalls four aspects of the scientific consensus. First, paragraph 9 emphasises the consensus on the cause of climate change, namely anthropogenic GHG emissions:

> *'Noting with utmost concern* the scientific consensus, expressed, inter alia, in the reports of the Intergovernmental Panel on Climate Change, including that anthropogenic emissions of greenhouses gases are

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of-cases/request-for-an-advisory-opinion-submitted-by-the-commission-of-small-island-states-on-climate-change-and-international-law-request-for-advisory-opinion-submitted-to-the-tribunal/.

[13] Request for an Advisory Opinion on the Scope of the State Obligations for Responding to the Climate Emergency (Art. 64 § 1, American Convention on Human Rights), Advisory Opinion OC-32, Inter-Am. Ct. H.R., *pending*, (Jan. 9, 2023), *available at*: https://www.corteidh.or.cr/observaciones_oc_new.cfm?nId_oc=2634.

> unequivocally the dominant cause of the global warming observed since the mid-20th century.'

20. Secondly, it summarises the scientific consensus on the fact that the conduct causing climate change has had devastating impacts:

> '*Noting with utmost concern* the scientific consensus, expressed, inter alia, in the reports of the Intergovernmental Panel on Climate Change, including that … human-induced climate change, including more frequent and intense extreme events, has caused widespread adverse impacts and related losses and damages to nature and people'

21. Thirdly, the two components of the scientific consensus signed out in preambular paragraph 9 rely on statements in Summaries for Policymakers of IPCC reports.

22. These Summaries for Policymakers have been approved by consensus, line-by-line, by all 195 member States of the IPCC.[14] They are the expression not only of scientific consensus but also of State consensus on the science of climate change. Therefore, there is no need for the ICJ to engage or feel drawn into a trial of the science. The science is settled in all relevant respects.

23. The contents of preambular paragraph 9 of Resolution 77/276 have strong and deep roots in the scientific consensus expressed in the reports of the IPCC, particularly their Summaries for Policymakers. With respect to the cause of climate change, in the Summary for Policymakers of the IPCC's 2023 Synthesis Report (6th Assessment Report), the conclusion is formulated as follows:

> "Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 in 2011–2020. Global greenhouse gas emissions have continued to increase, with unequal historical and ongoing contributions arising from unsustainable energy use, land use and land-use change, lifestyles and patterns of consumption and production across regions, between and within countries, and among individuals"[15]

Regarding the devastating impacts of climate change, 6th Assessment Report further confirms that:

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[14] Principles Governing IPCC Work, *supra* note 11, § 4.4.

[15] IPCC, 2023: 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* [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, at 1−34, doi: 10.59327/IPCC/AR6-9789291691647.001 [hereinafter 'AR6 SYR SPM'].

> "Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred. Human-caused climate change is already affecting many weather and climate extremes in every region across the globe. This has led to widespread adverse impacts and related losses and damages to nature and people (high confidence). Vulnerable communities who have historically contributed the least to current climate change are disproportionately affected (high confidence)"[16]

Additional components of the scientific consensus that are of utmost concern, including the following:

(1) Global warming has already exceeded 1°C,[17] and the resulting scale of changes in the climate system are unprecedented over many centuries to many thousands of years[18]
(2) Climate and weather extremes and their adverse impacts on people and nature will continue to increase with every additional increment of rising temperatures[19]
(3) Global sea level has risen faster since 1900 than over any preceding century in at least the last 3000 years,[20] driven by human influence,[21] and it will continue to rise over the 21st century[22]

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16 *Id*.

17 IPCC, 2018: Summary for Policymakers. In: *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* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, at 3-24, https://doi.org/10.1017/9781009157940.001 [hereinafter IPCC 2018 SPM Special Report]; *see also*, AR6 SYR SPM, *supra* note 15.

18 IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, at 3−32, doi:10.1017/9781009157896.001, *available at* https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf [hereinafter IPCC 2021, The Physical Science Basis].

19 IPCC, 2014: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, at 151, *available at* https://www.ipcc.ch/site/assets/uploads/2018/02/AR5_SYR_FINAL_SPM.pdf; IPCC 2021, The Physical Science Basis, *supra* note 18; *see also*, Glasgow Climate Pact, FCCC/PA/CMA/2021/10/Add.1 (Mar. 8, 2022), Dec. 1/CMA.3, ¶6, *available at* https://unfccc.int/sites/default/files/resource/cma2021_10a01E.pdf?download [hereinafter Glasgow Climate Pact].

20 IPCC 2021, The Physical Science Basis, *supra* note 18.

21 *Id*. at A.1.7.

22 *Id*. at B.5.3.

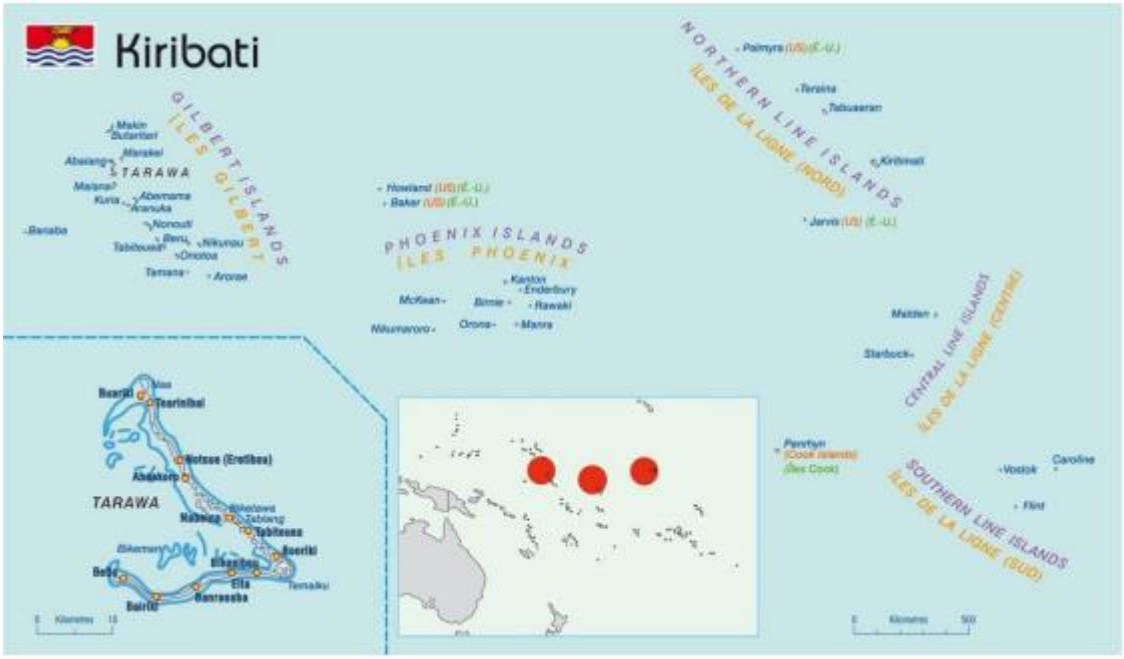
(4) The risks associated with such sea level rise are exacerbated for small islands, low-lying coastal areas and deltas,[23] with resulting damage and adaptation costs of several percentage points of gross domestic product[24]

(5) Without urgent and significant increase in mitigation efforts beyond those in place today, warming by the end of the 21st century will lead to severe, wide-spread and irreversible impacts globally,[25] and it will slow down economic growth, make poverty reduction more difficult, further erode food security, and prolong existing and create new poverty traps[26]

(6) Countries must urgently increase the level of ambition and action in relation to climate change mitigation, adaptation and finance in this critical decade to address the gaps in the implementation of the goals of the Paris Agreement.[27]

B. The Impact of Climate Change on the Situation of the Republic of Kiribati

Background



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23 IPCC 2018 SPM Special Report, *supra* note 17, at B.2.3.

24 Glasgow Climate Pact, *supra* note 19, at 17 (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).

25 *Id*. at 3.2 (Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change).

26 *Id*., at 20.

27 *Id*., ¶ 5*; see also* United Nations Environment Programme (UNEP), *Emissions Gap Report 2021: The Heat Is On – A World of Climate Promises Not Yet Delivered*, Executive Summary, at conclusions 6 and 7, *available at* https://wedocs.unep.org/handle/20.500.11822/36990;jsessionid=2EE25CE2E8AF3B2BD73700D7A61DDBF5.

COUNTRY STATISTICS (Source: CIA, n.d.)

Geographic coordinates	Lat. 4°N–3°S, long.157°W–172°E
Total land area	810.5 km²
Coastline	1,410,000 km
Exclusive economic zone	3.6 million km²
Geography	33 islands, 21 inhabited; three island groups: Gilbert Islands, Line Islands and Phoenix Islands & one isolated volcanic island, Banaba
Climate	Hot, humid, tropical

Pictured: Background of Kiribati island groups and basic country statistics

24. The Republic of Kiribati is made up of 33 scattered islands dispersed over 3.6 million square kilometres (km) in the Central Pacific Ocean. It is only 88 km from the northernmost end to southernmost end of the country, but 3,210 km from east to west (see Figure 1). There are three main island groups: Gilbert, Phoenix and Line Islands consisting of 32 low-lying atolls that rise to no more than 2 or 3 metres above sea level, apart from Banaba, a raised coral island with a high point of 81 meters, which was once a rich source of phosphate.

25. The Kiribati 2015 census determined that the total population was 110,136, of whom 50.9 per cent were female and 49.1 per cent male. This indicates an increase of 6.9 per cent, or 7,078 people, over the five years since 2010, when the census recorded a population of 103,058. This represents an average annual growth rate of 1.2 per cent.

26. On the capital island South Tarawa (in the Gilbert Group) the population density is one of the highest, at 3,184 people per square kilometre. This is where 51.1 per cent of the population of Kiribati resides, and the population here increased by 12.4 per cent from between 2010 to 2015.On the outer islands of the Gilbert, Line and Phoenix Groups, the 2015 census recorded a population of 10,503.

27. The Republic of Kiribati has two seasons- *'te Au Maiaki'* (the dry season) and *'te Au Meang'* (the wet season). The periods of the seasons vary from location to locating and are strongly influenced by the seasonal movement of the South Pacific Convergence Zone (SPCZ) and the Intertropical Convergence Zone (ITCZ).

28. The Republic of Kiribati, as other small island developing States, due to its geographical circumstances and level of development, is among the most specially affected and particularly vulnerable States to the adverse effects of climate change. For the Republic

of Kiribati, the well-documented harms include but are not limited to extreme weather events, sea-level rise; coastal erosion; ocean warming, acidification, and deoxygenations; and adverse effects on pelagic and coastal fisheries; coral reefs and biodiversity; drought and water security; agriculture; and food security. [28]

For the people of Kiribati, life revolves around an intimate relationship with their land and the sea. Perhaps this cherished connection is best captured in the symbolism of how I-Kiribati first travelled to and discovered their land: the *Te Wa* or 'canoe'. It is more than just a canoe; it is a significant piece of architecture with a remarkable history and measure of identity for Kiribati. It connects the land and the ocean and symbolizes cultural skills and traditional knowledge—it is what ancestors used to navigate the Pacific and find the coral island. It also symbolizes family. Kiribati has maintained a traditional family structure where men take on a role as the head of the family and women become the carers and home makers. Because of these hunter or gatherer roles, the canoe is seen as a male domain. Traditionally, women were not allowed to take part in the construction of the canoe nor were they allowed to take it to sea by themselves.

29. Nevertheless, women hold a significant role in the construction of the *Te Wa*, which cannot be understated. They provide the string that holds *Te Wa* together. *Te Wa* is bound by a string made from dried coconut husks. Women, usually sitting in a circle, would tightly roll the fibres of the coconut husks along their thighs to form perfectly bound rope. Although it may seem like a menial task, it can take years to perfect the process of drying the husk, separating it, and then coiling the husk to create an almost unbreakable thin twine. This rope holds the riggers against any raging tides, and holds fast when the salt water threatens to destroy even the toughest steel. While men discover islands and fish for their family's food, the women provide the strength that holds the man's canoe together.

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[28] *See* The Pacific Community (SPC), Expert Report for Kiribati, Dr. Stuart Minchin (compilation and suthorship by Johanna Gusman, M.Sc., J.D.), Mar. 12, 2024 [hereinafter *SPC Expert Report*] at Annex 1; *See also*, Simon McGree, Grant Smith, Elise Chandler, Nicholas Herold, Zulfikar Begg, Yuriy Kuleshov, Philip Malsale and Mathilde Rittman, SPC. *Climate Change in the Pacific 2022: Historical and recent variability, extremes and change.* Chapter 5 'Kiribati'; and Gillett R. and Fong M. 2023. Fisheries in the economies of Pacific Island countries and territories (Benefish Study 4). Noumea, New Caledonia: Pacific Community, at 704, *available at* https:// purl.org/spc/digilib/doc/ppizh. SPC also received further data from experts at the Secretariat of the Pacific Regional Environment Programme (SPREP) in consultation with the Kiribati government.

30. Having ventured out to the Pacific for thousands of years, the *Te Wa* symbolises everything the people of Kiribati have achieved. It is part of who the Kiribati people are—their respect for the ocean, land, culture and family all encompassed into one structure. Thus, the effects of climate change that disturb Kiribati people's relationship to their ocean, land, culture and family tampers directly with their very identity. This is why sea-level rise creates such an existential threat—to have to leave their land because of climate change-related sea-levels swallowing it up is devastating and people do not want to leave because of this.[29]

Climatic Effects

31. While the people of Kiribati remain resilient in the face of climate change, it does not mean that its effects are not felt daily, with significant ramifications, both economic and non-economic, as captured below.

(1) Sea-level rise

32. First and foremost, climate change-induced sea-level rise is an existential threat to Kiribati.[30] As a low-lying country composed of 33 atolls and reef islands—32 of which stand on average *just* two meters above sea level, reaching three metres at its highest point[31], it is particularly vulnerable to rises in sea level. Living at sea-level is hard to conceptualize for those who have not visited an atoll. Kiribati people live at the level of the sea; there is nowhere higher that the people of Kiribati can retreat to when the ocean meets their doorstep.

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29 *See generally*, Annex 2, Statements 1-12.

30 United Nations International Children's Emergency Fund (UNICEF), *Climate Change Impacts on Children in the Pacific: Kiribati and Vanuatu*, *available at* https://reliefweb.int/report/kiribati/climate-change-impacts-children-pacific-kiribati-and-vanuatu, (explaining that climate change-related issues confronting Kiribati are dominated by the projections of sea level rise because of the expected life-changing impacts. Even low-end projections will require considerable roll-out of infrastructure solutions (such as sea walls and water storage facilities) as well as non-engineering-based responses (psychosocial support). The high-end sea level rise projections challenge the very existence of Kiribati).

31 Republic of Kiribati, Sendai Framework for Disaster Risk Reduction: Midterm Review Report, *available at* https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-midterm-review-report-republic-kiribati.

Pictured: A sign in Eita Village marking the highest point on South Tarawa, a mere 3-meters above the sea-level.

33. Because of this, the Republic of Kiribati has suffered and continues to suffer significantly increased coastal erosion, and saltwater intrusion into its freshwater lens.[32] This means severe erosion of coastal areas that includes inundation of islands, flooding, contamination of water resources, saltwater contamination of arable soil (a resource that is already quite limited in the Republic of Kiribati, given its small land surface), as will be explored below:

(i) Coastal Erosion

34. Shoreline change from significant coastal erosion due to sea-level rise is a major concern for Kiribati. Observed and anticipated effects of sea-level rise continue to threaten low-lying reef islands and shoreline change over the last 30 years depicts widespread erosion as well as increases in size, driven largely by reclamation projects in urban South Tarawa.[33] Accretion helps explain why Kiribati's land changes. Vertical accretion refers to the build-up of deposits or sediment in flood areas from periodic flooding of its banks and occurs in successive layers measured over time. The ability of land to sequester sediments and expand its volume is directly related to the pace of rising sea levels.

35. In rural North Tarawa, most reef islands show stability with localised changes in areas such as embayments – referring to a recess in a coastline forming bay-like formations

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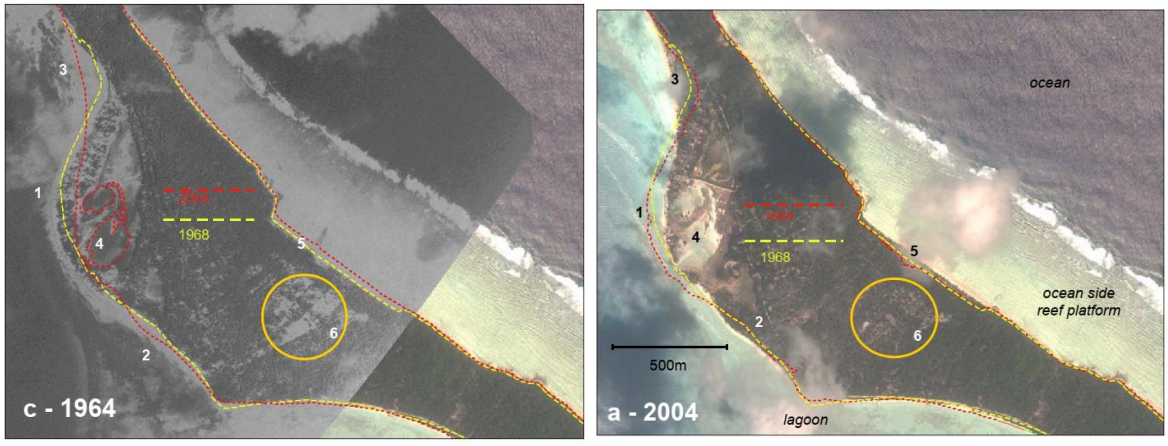
32 *SPC Expert Repor*t, Annex 1, at 3, para. 8.

33 *See e.g.*, plans for Kiribati's Temaiku Land and Urban Development Project to address challenges posed by sea level rise, *available at* https://youtu.be/EnKIpEnDfCM.

often linked to irregular corrosion or modification of groundmass – sand spits, and beaches adjacent to, or facing inter-island channels. Shoreline changes in North Tarawa are largely influenced by natural factors, whereas those in South Tarawa are predominantly caused by human factors (i.e., reclamation) and seasonal variability associated with El Niño–Southern Oscillation (ENSO). However, there are serious concerns for the future of South Tarawa reef islands, as evidence shows widespread erosion along the ocean and lagoon shorelines and further encroachment onto active beach areas. This will disrupt the longshore sediment transport, intensify erosion, and increase the susceptibility of reef islands to the adverse impacts of sea-level rise.

36. Although coastal erosion is experienced in all the islands of the Republic of Kiribati, a village named *'Tebunginako'* in Abaiang Island is one extreme example of it. The village has receded up to 80m since 1964 and the village elders have reported that erosion has been an ongoing issue as long as they can remember. Due to this, the whole village relocated further inland. The coastal instability experienced at *Tebunginako* is the result of ongoing adjustment of this shore to the blocking of the channel and consequential halt of sand supply from the ocean to the lagoon beaches. Predominant northerly transport on the lagoon coast continues to redistribute material accumulated by the former channel northwards, causing erosion in the southern areas of the bulge and accretion in the northern areas of the village.[34]



Pictured: Comparisons of Tebunginako village from 1964 to 2004 depicting significant coastal erosion over the course of 40 years.

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34 Webb, A.P., 2006: Analysis of Coastal Change and Erosion –Tebunginako Village, Abaiang, Kiribati. EU EDF 8/9 – SOPAC Project Report 53: Reducing Vulnerability of Pacific ACP States, South Pacific Applied Geoscience Commission (SOPAC), SOPAC Secretariat, Suva, Fiji, at 3.

37. As Mr. Kiaitonga Burera, an Elder from the Tebunginako Community in Abaiang recalled: *"My village—where I was born and raised—is now underwater. It no longer exists as I remember it. My family has always lived in this area, my parents, their parents, as far as we can remember […] the village was big. All that is now underwater. Even the buildings. In the past, the wind and the waves went onto the land and destroyed the land and made the water salty […] My people are known for (laughingly) people good at eating. That was before, now this island is well known as an island effected by climate change. We did not want that identity."*[35]

(ii) Wave inundation and flooding

38. With sea-level rise comes higher incidents of wave inundation leading to flooding.[36] When flooding from waves occurs regularly, it has immense impacts on communities: *"When Kings tide happen twice a month, full moon and new moon, the sea is coming in most of the places and goes around 40 cm. Before, this was not a problem, the sea was not coming so high. The problem started around 2000 when the tide was so high so the sea from the lagoon forced its way to enter in the land. Since that time, we are facing this problem, and it seems to be rising up more than before. Places we didn't consider to be a problem before, now we need to put more sands and find solutions. More than half of the community is facing the same issue."*[37]

39. Many government officials testify to the fact that these issues dominate their work, demonstrating the ubiquity of the problem. As one climate change officer describes, *'It seems that there is much effort needed to go to the public and tell them about these kinds of impacts and events. In terms of public awareness, it has increased our load to try to convince and tell the public about how they can deal with erosion, high tide and strong waves, etc.'*[38]

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35 *See* Annex 2, Statement 12, at paras. 2, 5, and 7.

36 *SPC Expert Report*, Annex 1, at 5.

37 Annex 2, Statement 3, at para. 8.

38 Testimonial Notes, Interview with the Officer in Charge and climate change officers from the Ministry of Environment, Lands and Agriculture Developments, on file with SPC's Human Rights and Social Development Division (Feb. 20, 2024).

40. For example, on 20 February 2015, coastal flooding overflowed causeways along South Tarawa and damaged the hospital in the town of Betio.[39] The hospital was left in a state of disarray and patients were evacuated to a sports complex for treatment. All medical services were suspended. The waves destroyed the hospital's maternity ward, toilet block and part of the seawall built to protect it.

41. Countries near the equator like Kiribati are normally protected from cyclones but have, in recent times, had to deal with them directly, or as cyclones become more and more intense, deal with the extreme waves they generate, even from afar. For example, some of the more recent significant swells that have affected Kiribati's more isolated islands originated from strong storms all the way in Cook Islands. Another example happened in February 2019. Infrastructure and properties were severely damaged in Tamana Island and Arorae Island by a storm surge that was caused by an active low-pressure (tropical depression) system that developed near the southern islands in Kiribati and later moved southward to Fiji Islands, where it fully developed into Tropical Cyclone Mona.[40]

42. These types of extreme events are becoming more common as is corroborated by the experience and expertise of Mr. Ueneta Toorua, Director of Kiribati's Meteorological Service: *"Over the course of my career at the Meteorological Service (MET), there have been a lot of events, including extreme events that were once rare to observe now affecting our people more frequently* […] *What is normal, is no longer 'normal'. Now, we are starting to categorize what was once considered 'normal' as an extreme. The threshold of what is 'extreme' is happening more and more frequently."*[41]

(iii) Salinification of Water Sources

43. On atolls, freshwater sources are precious. People need freshwater for drinking and growing food. Therefore, once it is contaminated with the salt from seawater, the results can be catastrophic. Residents of the capital South Tarawa only have three main sources of water: rainwater, groundwater (or well water), and a piped water system. Those who

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39 *Pacific Waves: Severe damage at Kiribati hospital due to coastal flooding*, Radio New Zealand Pacific Waves (Mar. 2, 2015), *available at* https://www.rnz.co.nz/international/programmes/datelinepacific/audio/20169245/severe-damage-at-kiribati-hospital-due-to-coastal-flooding (last visited March 8, 2024).

40 Government of the Republic of Kiribati, *Kiribati Joint Implementation Plan for Climate Change and* Disaster *Risk Management (KJIP) 2019-2028*, at 40.

41 Annex 2, Statement 10, at paras. 4 and 6.

reside on the outer islands depend solely on groundwater and rainwater, for those who even have access to tanks that store rainwater. When rising sea levels cause intrusion of saltwater into these freshwater sources, it undermines water and food security for entire communities, and threatens the very existence and livelihoods of large segments of the population.

44. Increased storm surges also contaminate drinking water and water used for agriculture. Rising sea levels have led to contamination of groundwater (salinification) as well, which is killing native plants and destroying crops. Almost all agricultural crops in the capital South Tarawa have been killed by salinification of groundwater, resulting in food scarcity. Kiribati's main three crops; *'te mai'* breadfruit, *'te bwabwai'* swamp taro and *'te bwabwaia'* papaya, are all susceptible to dying from salinization of groundwater.

45. While many testimonials from across Kiribati discussed how seawater kills crops, Mr. Brian Ritang described his battles in creating even a small garden for his family as his mother had done for him: *'Before, when I visited my mother here, there were breadfruit trees, but they have all gone because of the sea water which brings salt to the soil. Even coconut trees are dying. There is no way to make a plantation here due to the sand…'*[42]

46. The Buota water reserve in South Tarawa is one of the two major water sources in Kiribati's capital South Tarawa. Flooding from rising sea levels caused the Tarawa bridge to collapse in June 2008, severing pipelines from the water reserve. The Kiribati Adaptation Program Phase III was able to replace the bridge and lay down new pipes, which gives water to citizens living in South Tarawa and not near another water reserve, allowing them to access safe drinking water without having to commute to the Bonriki reserve (also preventing its over pumping).[43]

(2) Droughts

47. While Kiribati regularly experiences the intrusion of saltwater into groundwater, it also experiences frequent droughts. In 1971,1985,1998 and 1999 annual rainfall was less than 750mm for each year. The drought from April 2007 to early 2009 severely affected the southern islands in the Republic of Kiribati and Banaba. The recent drought from 2018

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42 Annex 2, Statement 2, at 21.

43 Rosen, E. *Climate Change in Kiribati*, Storymaps ARCGIS (Jan. 23, 2021) available at https://storymaps.arcgis.com/stories/7f455136b85f4edd8655d15a89b5039f.

to March 2019 severely affected groundwater. During this period, groundwater turned brackish, and leaves of most plants turned yellow.[44]

48. During these prolonged dry spells, the water lens can turn briny, whereas heavy rains and storm surges can lead to contamination of the lens, so water safety is affected under both extremes of too little and too much rainfall. For example, South Tarawa is home to more than half of Kiribati's population, but piped water is only available for about two hours every second day. Thus, if rains do not replenish water storage for families outside this window, it means that most Kiribati households lack access to piped, safe drinking water.

49. A report from the UN published in 2016 found that 94% of households were impacted by environmental hazards in the preceding ten years, such as sea level rise, saltwater intrusions, and drought.[45] Without proper rainfall, Kiribati's water is getting saltier and saltier making it harder to withdraw the necessary amount of fresh drinking water people need.

(3) Ocean warming, acidification, deoxygenation and its effects on coral reefs

50. Coral reefs in the Central Pacific, such as in Kiribati, are on the leading edge of the predicted global collapse of coral reefs. Kiribati has already experienced the biological or ecological extinction of multiple *Acropora* coral species due to marine heat waves lasting for months on the end. Scientists predict that by 2050, according to present trends, bleaching will become an annual occurrence on most reefs and by that time only 10% of the world's reefs will persist.[46]

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[44] Ueneta Toorua, *Kiribati Meteorological Service Country Report: Reporting on National Priority Actions of the Pacific Islands Meteorological Strategy (PIMS) 2017-2026*, presented at the Fifth Pacific Meteorological Council (PMC-5) Meeting, Apia, Samoa (Aug. 7, 2019), *available at* https://www.pacificmet.net/sites/default/files/inline-files/documents/10.6%20KIRIBATI%20PMC-5%20country%20report.pdf.

[45] United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), *Kiribati: Climate change and* Migration—*Relationships between household vulnerability, human mobility, and climate change*, Report No. 20, (Nov. 2016), at 11, *available at*: https://collections.unu.edu/eserv/UNU:5903/Online_No_20_Kiribati_Report_161207.pdf.

[46] United Nations Environmental Programme (UNEP), *Life Below Water*, from data in *The Status of Coral Reefs of the World: 2020* by the Global Coral Reef Monitoring Network; *see also*, Responsible Seafood Advocate, Experts*: World's coral reefs could vanish by 2050 without climate action*, Apr. 20, 2022, *available at* https://www.globalseafood.org/advocate/experts-worlds-coral-reefs-could-vanish-by-2050-without-climate-action/.

51. Coral is an integral part of the physical make up of Kiribati's islands. They are home to a diverse array of marine life and play an important role in the country's ecosystem and economy. These reefs provide habitat for many species of fish, invertebrates, and other marine animals and they protect the shores of the island from storms and erosion. Coral reefs also serve as a source of food and income for the people of Kiribati, who rely on the seafood and tourism industries for their livelihoods.[47]

52. However, like coral reefs around the world, those in Kiribati are threatened by a variety of factors, including climate change. Rising sea temperatures and increasing of acidity of the ocean due to climate change has led to coral bleaching in the western portion of Kiribati back in 2004-2005 and 2009-2010. In addition, increased sea surface temperature can increase coral reef bleaching, resulting in changes in fish migration and breeding patterns, leading to potential decrease in some fish stocks.[48]

Ramifications:

53. *Tungaru* (the local language term for 'Kiribati') ancestors understood the interconnectedness of land, ocean, and people just as the *Te Wa* connects all three. The ramifications of climate change impacts continue to demonstrate this interconnectedness because its consequences effect every person on this planet, not just those living on atolls. This section will touch upon those most pressing to Kiribati, but they are not just limited to health, water security, food security, economic harms, non-economic harms, and impacts to self-determination.

(1) Health

54. Many health problems in Kiribati are due to the increasing impact that climate change is having on their environment. For example, deteriorating water quality—caused by salinization, drought, and the mixture of both – seriously impacts people's health. The high rate of population growth in South Tarawa is causing stress on water and sanitation

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47 *See generally, SPC Expert Report*, Annex 1.

48 *Id*.

services, intensifying the issue. This incidence of overcrowding, especially in urban Tarawa, coupled with the shortage of fresh water, have increased cases of diarrhoea and infectious diseases, such as scabies, for children.[49] Exposure to these conditions have caused many diseases and further health problems for the people of Kiribati with the survival of young children being particularly at risk. According to Dr. Alfred Tonganibeia, *"the quality of water in Kiribati is very poor because of this narrow strip of land where we are situated. In time of droughts, we see an increasing number of diarrhoea and skin infections. The same is happening with heavy rainfalls."*[50]

55. Climate change may also be directly or indirectly linked to an increase in vector-borne, waterborne, and food-borne diseases, and to other climate-induced and disaster-related diseases. In Kiribati, climate change is linked to increased risk of infectious and vector-borne diseases, particularly dengue fever, diarrhoeal disease, and cholera.[51] At the time of drafting this report, there is a current outbreak of rotavirus due to these aspects. Populated areas such as the capital city of Tarawa have been heavily impacted. The Environmental Health Unit (EHU) in Kiribati's Ministry of Health & Medical Services (MHMS) has begun a surveillance and study of climate sensitive diseases to help with Kiribati's health security. It has also refurbished and built new laboratories to study these diseases.

56. Kiribati has a high mortality and morbidity rate of both communicable and non - communicable diseases (NCDs).[52] NCDs, including cancer, hypertension, diabetes and heart diseases are becoming more common, increasing the health costs for the country. NCDs are increasing because of poor nutrition due to imported food and a limited ability to purchase food or to grow and produce healthy food, resulting in an overreliance on

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49 Ministry of Infrastructure and Sustainable Energy, South Tarawa Sanitation Project, *available at* https://www.mise.gov.ki/35-stsp-esia-clean.

50 Annex 2, Statement 9, para. 13.

51 Republic of Kiribati, Joint Statement 35th Universal Periodic Review, Human Rights Council, (July 22, 2019) at para. 17 (addressing 'Right to health') *available at* http://www.edmundriceinternational.org/kiribati-joint-statement-35th-upr-session-of-hrc/#:~:text=Right%20to%20health,-17.&text=In%20Kiribati%2C%20climate%20change%20is.

52 *Id*. at para. 18.

imported food, that in turn, worsens NCDs. In fact, Kiribati has one of the highest diabetes percentages in the world.[53]

57. Dr. Alfred Tonganibeia, Officer in Charge of the Public Health, explains that the burden of NCDs in Kiribati which affects around 20% of the population, and "contributes to 70% of the total moratlity",[54] is due to inaccessibility of healthy food, due to climate change: *"We are not able to grow or cultivate fresh vegetables. Instead of that, people are relying on the imported foods. Climate change is there, really, it's just exacerbating effect of sugar consumptions with high obesity rate for instance…. How can we grow vegetables or fruits? If the water is high, there's sea water intrusion everywhere so nothing can't really grow much. This pushes people to access unhealthy diets."*[55]

58. Without the ability to grow food from soil contamination, healthy eating becomes difficult.[56] *"There is no way to make a plantation here due to the sand not fertilized so the impact on us is our health with a lot of diabetes, hypertension and blindness. I do [myself] have diabetes."*[57]

(2) Water Security

59. Climate change impacts and related natural disasters are affecting the quantity and quality of the water available to the small island atolls of Kiribati. As previously discussed, sea-level rise is one major culprit as it increasingly threatens the water stored in the groundwater lenses and will also exacerbate existing seasonal conditions such as king tides. On low-lying atolls with porous soils, the groundwater lens – the main source of water available – is highly vulnerable to inundation and saltwater intrusion.

60. Most recently, on 11 of June 2022, the Government of Kiribati declared a State of Disaster due to drought. A lack of fresh water, severely depleted reserves and increasing salinity in existing water supplies resulted in thousands being left without sufficient

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53 John Paul Cauchi, Hilary Bambrick, Ignacio Correa-Velez, Stefano Moncada, *White flour, white sugar,* white *rice, white salt: Barriers to achieving food and nutrition security in Kiribati*, Food Policy, Vol. 101 (2021), 102075, ISSN 0306-9192, https://doi.org/10.1016/j.foodpol.2021.102075.

54 *See* Annex 2, Statement 9, at para. 4.

55 *Id*.

56 *Id*. at para. 6.

57 Annex 2, Statement 2, at para. 21.

access to safe drinking water. In Kiribati, the main source of potable water depends on the rainwater harvest and aquifers (naturally occurring freshwater sources). According to the estimates in 2015, only 64.4 per cent of the population in Kiribati had access to basic drinking water services – that is, improved water within a 30-minute round trip – with 35 per cent of the population having access only to an unimproved source – that is, more than one third of the population.[58]

61. Additionally, in an interview with the Director of Agriculture, Kinaai Kairo, she described how these troubles also affect agriculture: *"In the past, drought was not very common. Nowadays, drought is a must to come every year and they don't come more frequent, but they are more tense. That's really affecting the production of not only the plants but the animals as well. The water we use for agriculture is the same as for the domestic usage. In that way, we are competing on the use of that water domestic use and agriculture."*[59]

(3) Food Security

62. Food insecurity is prevalent in South Tarawa where over half the population is situated. The lack of nutritional knowledge and the cultural perception regarding foreign food exacerbate this issue. Traditional food production systems are negatively affected by climate change leading to a shift towards imported foods of poor nutritional quality over fresh fish and vegetables. Certain programs aimed at teaching how to cultivate vegetables in elevated containers are being implemented by the government, but funding is required to further develop these initiatives.[60]

63. In addition, food insecurity is also prevalent on some atoll islands such as Marakei. The porous and infertile soil has led communities to adapt to new techniques or revive traditional knowledge from old people to support the planting of indigenous and imported vegetable plants. Plants that were grown previously, including '*te mai*' breadfruit, '*te*

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58 International Labour Organization (ILO), Regional Office for Asia and the Pacific, compilation using World development indicators, last updated May 21, 2018; http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators, at 3.

59 Annex 2, Statement 4, at para. 6.

60 Annex 2, Statement 3, at para. 13.

bwabwai' swamp dalo and '*te nii*' coconut trees have been affected by changes in climate, as normal rain seasons are not occurring and an increase in temperature as well as sea level rise have prevented plants from getting good nutrients from the soil for their growth. This resulted in poor produce and reduced yields.

64. The effect of sea surface temperatures rise and ocean acidification in Kiribati impact food security. Kiribati's Minister for Fisheries & Marine Resources Development, Honarable Minister Ribanataake Tiwau, emphasised the vital role of tuna for his country in a panel discussion at a COP28 side event on 11 December 2023, on the impact of climate change on fisheries.[61] The economic and food security significance of tuna for Kiribati is critical and will be further explored below.

65. The fishing contribution to GDP – A$47.2 million – is 15.6% of the A$302.8 million GDP of Kiribati in 2021. Thus, any changes to fish health and migration resulting from climate change is of major concern. This is particularly true for tuna, which is Kiribati's largest source of revenue. [62] Despite the variable oceanic conditions, the prime area for tuna is the convergence zone between the two large ecological provinces dominating the equatorial Pacific Ocean: the 'western Pacific warm pool' and the 'Pacific equatorial divergence', also known as the 'cold tongue'.[63]

66. This convergence zone, which is several hundred kilometres wide, is characterized by relatively high concentrations of tuna prey and sea surface temperatures that are favoured by skipjack tuna. The location of this convergence zone is strongly impacted by El Niño and the Southern Oscillation (ENSO). During El Niño events, the warm pool can extend by up to 4,000 km, relocating the convergence zone further to the east (often within Kiribati's EEZ). Thus, changes in the position of this convergence zone due to the

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61 Pita Ligaiula, Pacific Islands News Association, *Climate Change threatens tuna and economic stability, warns Kiribati Fisheries Minister*, Dec. 13, 2023 (accessed 11 March 2024) *available at https://pina.com.fj/2023/12/13/climate-change-threatens-tuna-and-economic-stability-warns-kiribati-fisheries-minister/.*

62 *SPC Expert Report*, Annex 1, at 8, para. 20.

63 Bahri, T., Vasconcellos, M., Welch, D.J., Johnson, J., Perry, R.I., Ma, X. & Sharma, R., eds. 2021. Adaptive management of fisheries in response to climate change. FAO Fisheries and Aquaculture Technical Paper No. 667. Rome, FAO. https://doi.org/10.4060/cb3095en.

(ENSO) will have a major influence on the abundance of tuna in the EEZ of Kiribati, which could result in significant losses of GDP and threaten food security.[64]

67. As oceans warm, acidify, and deoxygenate, Kiribati becomes less and less food secure. Climate change threatens Kiribati`s ability to feed themselves, thus impacting their realization of the right to food. The resulting national scarcity of agricultural products has forced people to rely on imported food commodities to meet their everyday needs. These imports are essential for survival, but they are costly, and people buy whatever they can afford.

(4) Economic Harms

68. While there exist many forms of quantifiable, economic harm that arise from climate change, this section will focus on the two most damaging for Kiribati: agriculture and aquaculture.

(i) Agriculture

69. Extreme weather conditions wreak havoc on crops, making dependence on agriculture insecure for both subsistence and economic activities, particularly on atolls where arable soil is scarce. This will not only have negative impacts on food security but will also have negative impacts on household incomes and wellbeing, especially for the people living on the outer islands where subsistence farming is most common.

70. The Republic of Kiribati relies much on subsistence fishing and simple agriculture. Subsistence agriculture on the small islands of Republic of Kiribati is threatened by rising sea levels, as coastal erosion reduces the land available for crop use. As such, much of the remaining soil is contaminated with saltwater restricting the ability for crops to grow.

71. The reliance by Republic of Kiribati people on coconut production cannot be emphasized enough. The Republic of Kiribati's economy is heavily dependent on copra or ***'takataka'***, the dried meat of a coconut, which is used to produce coconut oil. The government

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64 *SPC Expert Report*, Annex 1, at 6, para. 15; *see also* Bell JD, Johnson JE, Ganachaud AS, Gehrke PC, Hobday AJ, Hoegh-Guldberg O, Le Borgne R, Lehodey P, Lough JM, Pickering T, Pratchett, MS and Waycott M (2011), *Vulnerability of Tropical Pacific Fisheries and Aquaculture to Climate Change, Summary for Pacific Island Countries and Territories*. Secretariat of the Pacific Community, Noumea, New Caledonia.

supports the agriculture section via heavily subsidizing copra. Under the Republic of Kiribati's current export structure, fisheries and copra account for more than 90 per cent of total exports.[65] This crop, which comprises the majority of agricultural exports, is highly sensitive to rainfall making it vulnerable to the impact of climate change and the influence of La Niña years, when droughts can be experienced. Copra production, the main income source for people in the outer islands, declined.[66] Other crops important to subsistence farmers are *breadfruit*, *pandanus* and *te babai* (giant taro) which are all impacted by loss of land due to inundation, contamination of groundwater and storm surges or overwash.

(ii) Aquaculture

72. With one of the largest Exclusive Economic Zones (EEZ) in the world, Kiribati is highly dependent on revenue from fisheries; with 81% of actual revenue in 2015,[67] or approximately AUD 207.1 million, derived from fishing licenses and other fishing revenue. However, the new environmental threats that have emerged, which include the threat due to climate change, such as the depletion of water and pollution of water from salinity in the lagoons have affected inshore fisheries. Marine life is also under threat from pollution and plastic waste. Any changes in climate will also have a direct negative impact on the marine ecosystem and fisheries stocks, which will result in reduced revenue for Kiribati.

73. Commercial and subsistence fishing account for more than 50 per cent of Kiribati's GDP. It is estimated that the production from coastal subsistence fisheries in Kiribati in 2021 was 11,000 tons, worth A$30 million to fishers. The HEIS 2019 – 2020 indicates that 44% of households in Kiribati participate in fisheries activities. In 2021, the tuna catch by the locally based longliners was 2,686 t, with an in-zone value of A$17.6 million.[68]

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65 International Monetary Fund, Asia and Pacific Department, *Kiribati: 2023 Article IV Consultation*, Sept. 15, 2023, *available at* https://www.elibrary.imf.org/view/journals/002/2023/329/article-A001.xml.

66 Government of Kiribati, Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management *available at*, Kiribati-NAP.pdf (unfccc.int).

67 Government of Kiribati, Ministry of Finance and Economic Development, 2017 Budget *available at* Kiribati 2017 Budget.pdf (mfed.gov.ki).

68 *See e.g.*, *SPC Expert Report*, Annex 1, at 7 – 9.

74. Commercial tuna fishing plays a vital role in the economy of Kiribati. Income from fishing licences fee provides over 40% of total government revenue annually. Since tuna is a migratory species, changes in weather patterns and ocean conditions due to climate change have adverse economic effects on Kiribati. In El Nino periods Kiribati gets a good return on its fishing licences and the reverse is true in La Nina periods, as the ocean gets colder than normal. The latter was experienced in 1988-89, late 1990/early 1991, 1995, in the early 2000s and the 2021-2022 period. As the effects of climate change become more prevalent, these oscillations may change and alter the interactions between tuna fishing and ecosystem structures,[69] negatively affecting the tuna fishery sector in Kiribati, as temperature warming is likely to be larger in the eastern Pacific than in the western Pacific.

75. The potential implications for Kiribati's economy in 2050 include an average decline in purse-seine catch of 20% (range=-10% to -30%), an average annual loss in regional tuna-fishing access fees of US $90 million (range=-US$40 million to -US$140 million) and reductions in government revenue of up to 13% (range=-8% to -17%) for individual Pacific SIDS.

(iii) Effects on Culture, Tradition and Family life

76. The climate impacts deeply effect Kiribati culture: loss of habitable and productive land, traditional crops, livelihoods, freshwater sources, access to viable and lucrative fishing waters, and much more. Kiribati has a rich cultural heritage that contributes not only to social development but also to its peoples' adaptive capacity in facing climate change and issues with food. One such example can be found in traditional food preservation, which is important to Kiribati's heritage, passed down as an art form from generation to generation. It uses natural resources (e.g., native plants, shells, traditional tools, etc.) in the multi-step process of preserving food. This traditional knowledge is decreasing given modern technologies. However, in the face of climate change impacts, as energy needs

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69 Callahan, C.W., C. Chen, M. Rugenstein, J. Bloch-Johnson S. Yang and E.J. Moyer. 2021. Robust Decrease in El Niño/Southern Oscillation Amplitude under Long-term Warming, Nature Climate Change, Vol. 11, September, at 752–757.; *see also*, Cai, W., A. Santoso, G. Wang, S.W. Yeh, S.I. An, K.M. Cobb, M. Collins, E. Guilyardi, F.F. Jin, J.S. Kug, M. Lengaigne, M.J. McPhaden, K. Takahashi, A. Timmermann, G. Vecchi, M. Watanabe and L. Wu. 2015. ENSO and Greenhouse Warming, Nature Climate Change, Vol. 5, September, at 849-859.

and natural resources can diminish, including due to drought and long bouts of extreme weather, traditional food preservation can be used to build resilience,[70] \a value Kiribati holds in high regard, as mentioned. This is an example of how a loss of traditional knowledge can mean a loss in the ability to adapt to climate change.

77. Mr. Kiaitonga Burera describes these processes: *"[i]n the past, imagine that all the people tell stories and pass the skills to children and grandchildren. It is passed as oral tradition. Also, there is a subject in the schools that gets taught, but it is not the same as learning from your grandparents. In the past, traditional skills were encouraged, now there is a change with new generations… For our village, the main resource is the coconut tree. It is symbolic of true—what you all say— 'sustainability'. Imagine that most families in the village protect the tree and try to cultivate it in order for it to produce more. And that every part of it is used. Not one part goes to waste*."[71]

78. When travelling in Kiribati or visiting another island for the first time, when you reach that island, before you do anything, you must announce yourself to the place by visiting a sacred site. An *"unimwane"* (respectful name for old man) will take you the sacred place and introduce you to the *"spirits of the land"*, and to show your respect, you must present a gift consisting of either a tobacco or cigarette. There is a superstition that if you failed to do this something bad might happen to you. As part of the island's culture, it is a must. Before the rapid change of sea level rise, the areas were more inland, but after the erosion, the areas are just over the beaches.

79. Sea level rise threaten the existence of some sacred sites by flooding the area and causing it to erode. An example is Marakei Island. Maraki Island is located 71.49 kilometres northwest of South Tarawa and is the only island of the Republic of Kiribati with a round shape. This island is unique as you must go around the island anticlockwise once you arrive, especially for the first-time visitors. Every visitor must bring a tobacoo during *'te Katabwanin'* as a gift *'mweaka'* to four shrines on this island. If a visitor fails to do so,

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70 Marii Marea, Director of the Culture and Museum Division, Kiribati Ministry of Culture and Internal Affairs, "Our Skills, Our Heritage, Our Resilience," *Unheard Stories, Disappearing Ecologies*, December 2023, Suva, Fiji.

71 *See* Annex 2, Statement 12, paras. 13 - 14.

there is a good chance they will be cursed. The four shrines are named after the four goddesses of Marakei Island- '*Nei Reei'* who protects the island in the west, *'Nei Rotebenua'* protector of the south side, *'Nei Tangangaua'* protector of the east side and *'Nei Naantekimam*' who protects the island in the north. Three of the island shrines are far enough inland to avoid high tides, but *'Nei Rotebenua'* is especially vulnerable and may eventually move further inland. *'Nei Rotebenua'* was moved once about 15 years ago when the tide washed away the old site, and if the sea level rise continues and affects this shrine, it will be moved a second time.[72] Every island in Kiribati has its own special way to move a shrine and this knowledge is kept by the elders and passed on to the next generation. Elders fear that if erosion of land keeps occurring, and the shrines need to keep relocating, and there aren't many people who know the process, these sacred places might disappear with the eroded lands.

80. As Mr. Kiationga Burera, an elder who has lived all his life on Abaiang Island, and must relocate, stated *"People of Abaiang, including my village, are connected to the sea and to the land. Imagine that in the past, in the old place, it was a big community with big land. Now, since we relocated, we are scattered. Broken."*[73]

81. In Kiribati, most children's homes, health facilities, schools, churches and recreation areas are located within a few hundred metres of the coast. Women, children and the elderly, who are among the most disadvantaged household members, often bear the disproportionate share of the burden of inadequate fresh water supply.[74] So, when the ocean continues to creep inward, and fresh water is increasingly at risk, these groups become even more marginalized.

82. Research has shown that gender also plays a critical role in addressing climate change. The responsibility for temporary dislocation disproportionally falls on women as they are

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72 Janice Cantieri, *Shoreline Creeps Close to Kiribati's Sacred Sites, National Geographic Society Newsroom*, available at https://blog.nationalgeographic.org/2016/01/06/shoreline-creeps-closer-to-kiribatis-sacred-sites/ **(**accessed on Mar. 2, 2024).

73 Annex 2, Statement 12, para. 11.

74 ADB, *Climate Change, Water Security, and Women: A Study on Water Boiling in South Tarawa, Kiribati* (2021), at 4, *available at* https://www.adb.org/sites/default/files/publication/722186/climate-change-water-security-women-kiribati.pdf.

the ones to speak to relatives and initiate the moving. An oft-cited statistic is that 80% of people displaced due to climate change are women and girls.[75]

Impact on the exercise of self-determination

83. Vulnerability to climate change is shaped by the environment in a multitude of ways, including through sociopolitical circumstances. The British left Kiribati in 1979, within many of people's lifetimes and memories. These pre-existing conditions from colonialisation can have lasting impacts on the exercise of self-determination, particularly for low-lying island states like Kiribati that are fighting the consequences of sea-level rise, which has jeopardised aspects of cultural identity and choice of staying in one's ancestral village.

84. The Gilbert Islands were named in honor of Thomas Gilbert, a British captain whose ship sighted some of the islands after transporting convicts to Australia in 1788. In default of a generally acceptable indigenous name, it was decided at the time of independence to adopt "Kiribati" (pronounced "kiribass"), the local respelling of "Gilberts," for the new nation. The poetic "Tungaru" usually connotes the ancestors. Almost all of the citizens of Kiribati have at least some I-Kiribati ancestors and inherited lands rights in the Gilbert Islands. The indigenous inhabitants of Banaba (Ocean Island) speak a Gilbertese dialect and practice a variant of Gilbertese culture but consider themselves a separate people politically (causing some strife in Kiribati's political history). Most Banabans have lived on Rabi Island in Fiji since 1945.

85. The ideal of decolonisation from the 1960s assumed that it would bring economic independence and well as political freedom but given the structural vulnerability of island economies and their physical isolation, this was not the case for Oceania. Given the long history of colonisation, economic dependencies were created, limiting Kiribati's ability to effectively adapt to the climate vulnerabilities it inherited. For example, the British effectively diminished phosphate and mineral production. In the early 1970s, annual production reached a high of 550,000 tonnes, but deposits were exhausted by the time of

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75 United Nations, Office of the High Commissioner on Human Rights (OHCHR), "Climate change exacerbates violence against women and girls," July 2022, (accessed Jan. 23, 2024), *available at* https://www.ohchr.org/en/stories/2022/07/climate-change-exacerbates-violence-against-women-and-girls; *see also* Fran Woodworth, "The Gender Dimensions of Climate Displacement," Sept. 14, 2023, accessed Jan. 23, 2024, https://www.shechangesclimate.org/blog/the-gender-dimensions-of-climate-displacement.

Kiribati's independence in 1979,[76] left with the vulnerabilities caused by previous environmental destruction.

86. The rising sea-level and other climatic impacts documented here threaten the territorial integrity of the Republic of Kiribati as loss of landmass and communities were forced to move inland from inundated areas severely hinder the I-Kiribati's ability to exercise their right to self-determination and to control their own natural resources.

Conclusions

87. The Republic of Kiribati, as other developing small island States, due to its geographical circumstances and level of development, is among the most specifically affected and particularly vulnerable States to the adverse effects of climate change. For Kiribati, the harms described in this Part are all encompassing, and they deeply affect each aspect of individual and communal life. The harms that include extreme weather events, including sea-level rise, coastal erosion, ocean warming, acidification, deoxygenation and drought, create adverse effects on agriculture, food security, and water security, and on coastal fisheries, coral reefs and biodiversity. This results in severe harm to individual and collective rights, including the rights to life, to family life, to community life and the right of the Kiribati to enjoy its right to self-determination while being able to protect of their natural wealth and resources from the impact of climate change, and to pursue their economic, social and cultural development.

IV. SUBMISSIONS ON THE QUESTION

88. The questions formulated by the UN General Assembly in the operative part of Resolution 77/276 reads as follows:

> "(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

[76] *See generally*, Britannica, The Editors of Encyclopaedia. "Banaba". *Encyclopedia Britannica*, 17 Oct. 2023, https://www.britannica.com/place/Banaba (accessed Mar. 11, 2024).

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?"

89. This section (a) defines "the conduct of States over time in relation to activities that contribute to climate change and its adverse effects" which Resolution 77/276 refers to in its fifth preambular paragraph; section (b) defines the obligations that States have in relation to their conduct; and section (c) the legal consequences of their conduct.

A. The Conduct of States which Gives Rise to States' Obligations

90. This section seeks to identify the relevant conduct of States over time ("the Conduct") that gives rise to their legal obligations, to be further discussed in the subsequent sections. This section itself is divided into two types of conduct: (i) acts or omissions of states over time that resulted in emission of anthropogenic GHG from activities within their jurisdiction which have caused significant harm to the climate system and other parts of the environment, and (ii) the omission of States to take active steps to mitigate the consequences of those harms within and beyond their jurisdiction.

91. The distinction between these two different types of conduct is reflected in the two questions addressed to the Court. While question (b) refers to obligations of states for harm caused by States' acts and omissions, question (a) casts its net wider when inquiring about the obligations of States to ensure the protection of the climate system and other parts of the environment (without necessarily having contributed to the harm in the first place). After all, States' human rights obligations are implicated regardless of the question whether their previous acts or omission are the reason for the suffering of the individuals under their jurisdiction; and States may incur international obligations even

when they, as innocent bystanders, find themselves in a position to assist another State that is subjected to a natural disaster.

1. Acts or Omissions of States Over Time that Resulted in Emission of Anthropogenic GHG from Activities within their Jurisdiction which have caused Significant Harm to the Climate System and other Parts of the Environment

92. The conduct consists of acts and omissions of individual States that have led to anthropogenic greenhouse gas emissions from activities under their jurisdiction or control, causing interference with the climate system and other environmental components to a degree that constitutes significant harm to the environment. This is true whether or not GHG emissions of a particular State are the primary cause of climate change, or even the only cause, and whether or not they are the only or the main cause of the specific damages experienced by other states, communities, or individuals, people, or individual. The acts and omissions involve either the direct emissions of GHGs by the State itself or be connected to such activities, or related to such activities, which occurs when non-State actors carry out the activities within the jurisdiction of the State.

93. Anthropogenic greenhouse gas emissions originating from a specific State, whether initiated by the State or by non-state entities, are considered those that play a role in exacerbating climate change and its negative impacts. It is important to note that merely contributing to the harm is not the same as being its sole or primary cause. The crucial point here is the substantial contribution to the ongoing climate crisis.

94. As defined in the IPCC Glossary, the climate system encompasses other legal objects such as the "marine environment", part of the hydrosphere, or species, ecosystems and their biological diversity, as encompassed by the biosphere.[77]

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[77] IPCC, 2022: Annex II: Glossary [Möller, V., R. van Diemen, J.B.R. Matthews, C. Méndez, S. Semenov, J.S. Fuglestvedt, A. Reisinger (eds.)]. 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* [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 2897–2930, doi:10.1017/9781009325844.029, *available at* https://apps.ipcc.ch/glossary/.

95. There is a undeniable scientific connection between GHG emissions over time and the phenomenon of climate change, established by a scientific consensus which has been politically endorsed.[78] Global warming, as an expression of climate change measured in terms of global mean surface temperature, is caused by cumulative emissions of GHG. There is sufficient evidence to identify the share of States or groups of States in causing climate harms by the GHG emissions of specific States and groups of States. The contributions to the climate crisis are profoundly unequal. In 2022, the IPCC noted the significant inequality among States in terms their contribution to the crisis.[79]

96. The Conduct has had, and is expected to have, devastating consequences on certain States, peoples, and individuals. It is therefore not in question that climate change "has caused widespread adverse impacts and related losses and damages", as states by the IPCC.[80]

97. The Conduct is particularly consequential for Kiribati, as Part III of this submission has described. As reported by the IPCC, Global warming has exceeded 1°C, causing unprecedented climate changes;[81] Climate extremes and their adverse effects will worsen with rising temperatures;[82] Global sea levels, driven by human influence,[83] have risen faster since 1900 than over any preceding century in at least the last 3000 years,[84] and

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78 Principles Governing IPCC Work, *supra* note 11, § 4.4.

79 *See* IPCC, 2022: Summary for Policymakers [P.R. Shukla, J. Skea, A. Reisinger, R. Slade, R. Fradera, M. Pathak, A. Al Khourdajie, M. Belkacemi, R. van Diemen, A. Hasija, G. Lisboa, S. Luz, J. Malley, D. McCollum, S. Some, P. Vyas, (eds.)]. In: *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926.001., at statements B.3.1 and B.3.2.

80 IPCC, 2022: Summary for Policymakers [H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. 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* [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3–33, doi:10.1017/9781009325844.001, *available at* https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf

81 IPCC 2021, The Physical Science Basis, *supra* note 18, at A.2.

82 IPCC, *Climate Change 2014 Synthesis Report*, *supra* note 19, at B.2; *see also, Glasgow Climate Pact*, *supra* note 19, at para. 6.

83 IPCC 2021, The Physical Science Basis, *supra* note 18.

84 *Id*.

will continue to rise over the 21st century,[85] creating exacerbated risk for small islands, low-lying coastal areas and deltas.[86]

98. For decades, it has been widely recognized that greenhouse gas emissions have a significant impact on the environment, particularly on the climate system. States that have been responsible for large emissions of these gases, resulting in substantial harm to the climate and other environmental components, were aware or should have been aware of the consequences of their actions since at least the 1960s, as reflected in the decision of the United Nation's Economic and Social Council to address the "Question of Convening an International Conference on Problems of the Human Environment."[87] This is also the time period when the bulk of GHG emissions were released.

ii. The Omission of States to Take Active Steps to Mitigate the Consequences of those Harms in their Jurisdiction and Beyond Managing the "Carbon Budget"

99. The Conduct encompasses also the failure of States to take measures within their power to mitigate the consequences of such harms in their jurisdiction and beyond, regardless of their past contributions to the crisis.

100. The obligation to mitigate the consequences of such harms in their jurisdiction and beyond arises from the understanding that the Conduct is not only backwards-looking but also future-looking. The Conduct also extends to cover the conduct necessary to prevent or mitigate further harms.

101. In this context, the Conduct also extends to cover the management of the remaining so-called global "carbon budget" or "CO2 budget" going forward. This global budget reflects the amount of emissions that the atmopsphere can tolerate before tempratures rise beyond a certain harmful threshold. This concept of a carbon budget was defined by the IPCC, in its Special Report, Global Warming of 1.5°C (2018).[88]

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85 *Id*. at B.5.3.

86 IPCC 2018 SPM Special Report, *supra* note 17, at B.2.3.

87 *See* U.N. Economic and Social Council, 45th Sess. Question of convening an international conference on the problems of human environment, U.N. DOC. E/RES/1346(XLV) (July 30, 1968), *available at* https://digitallibrary.un.org/record/214491?ln=en.

88 IPCC 2018 SPM Special Report, *supra* note 17.

102. The IPCC distinguishes between two aspects of the budget : the *'Total carbon budget,'* namely the estimated cumulative net global anthropogenic CO2 emissions from the pre-industrial period to the possible result of limiting the warming to a given level, and the '*Remaining carbon budget'* which is the estimated cumulative net global anthropogenic CO2 emissions from any given start date to the reaching of net zero emissions.[89]

103. In discussing Germany's constitutional obligations in respect to climate change, the Federal German Constitutional Court[90] referred to what the IPCC called the remaining carbon budget, defined as "how much CO2 can still be released into the Earth's atmosphere and remain there permanently without causing the desired temperature to be exceeded."[91]

104. The German Federal Constitutional Court endorsed the view that:

> "There is a direct causal link between anthropogenic climate change and concentrations of human-induced greenhouse gases in the Earth's atmosphere […]. CO2 emissions are particularly significant in this regard. Once they have entered the Earth's atmosphere, they are virtually impossible to remove as things currently stand. This means that anthropogenic global warming and climate change resulting from earlier periods cannot be reversed at some later date. At the same time, with every amount of CO2 emitted over and above a small climate-neutral quantity, the Earth's temperature rises further along its irreversible trajectory and climate change also undergoes an irreversible progression. If global warming is to be halted at a specific temperature limit, nothing more than the amount of CO2 corresponding to this limit may be emitted. The world has a so-called remaining CO2 budget. If emissions go beyond this remaining budget, the temperature limit will be exceeded."[92]

105. The Supreme Court of The Netherlands[93] and the Federal Constitutional Court of Germany[94] have already found that their respective governments had failed to take the

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89 *Id*., at Part C.1.3.

90 Bundesverfassungsgericht [BVERFGE] [Federal Constitutional Court] Mar. 24, 2021, Order of the First Senate, 1 BvR 2656/18, 1-270, (Ger.) (official English translation), ¶ 36 [hereinafter BVERFGE, 1 BvR 2656/18].

92 *Id*.

92 *Id*., ¶ 119.

93 Urgenda Foundation v. The Netherlands [2015] HAZA C/09/00456689 (24 June 2015); aff'd (9 October 2018) (District Court of the Hague, and The Hague Court of Appeal (on appeal)) (affirmed by the Supreme Court, Dec. 20, 2019).

94 BVERFGE, 1 BvR 2656/18, *supra* note 90, ¶ 36.

necessary steps to manage responsibly their share of the global carbon budget. Similar petitions are pending before other national and international courts.

106. To conclude: The Conduct that is the focus of the questions put to the Court in the operative part of Resolution 77/276 include (a) acts or omissions of states over time that resulted in emission of anthropogenic GHG emissions from activities within their jurisdiction and which have caused significant harm to the climate system and other parts of the environment and (b) acts and omissions of States with respect to the current and future use of the remaining carbon budget, including the failure of States to take active steps to mitigate the consequences of those harms in their jurisdiction and beyond.

B. The Legal Obligations of States in Relation to Climate Change

107. The question formulated by the UN General Assembly in letter (a) of the operative part of Resolution 77/276 reads as follows:

> "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?

108. Question (a) inquires broadly about the obligations of states under general international law, in addition to the specific legal regimes specified in that question, to the protection under international law of the climate system and other parts of the environment from anthropogenic emissions of greenhouse gases for States and for present and future generations. These include the anthropogenic emissions that affected the Republic of Kiribati as described in the previous Section. This Section sets out the views of the Republic of Kiribati with respect to this question.

109. Given the all-encompassing implications of climate change as a global problem, and its specific overwhelming effects on the Republic of Kiribati and its people, the anthropogenic emissions of greenhouse gases are covered by a wide range of areas of

international law. This submission focuses on the most fundamental principles of general international law that have direct bearing on the legality, or more correctly, the illegality of the Conduct. Beyond specific obligations that arise under international human rights law, the law of the sea, customary international environmental law, international peace and security or other areas of law, the issue of anthropogenic emissions of greenhouse gases is first and foremost a matter of general international law, and specifically, the law on state sovereignty, that is at the heart of international law.

i. The Principle of Sovereign Equality and its Implications

States Have an Obligation not to Cause Significant Harm to Other States or to Common Resources

110. At the heart of international law lies the principle of sovereign equality.[95] This foundational principle is itself grounded in the basic norm of international law, which stipulates equal rights and self determination of peoples. As concisely and authoritatively articulated in the preamble to the Declaration on Principles of International Law concerning Friendly Relations and Cooperation among States in accordance with the Charter of the United Nations, 24th October 1970 [hereinafter; The Friendly Declaration]:

> "Convinced that the principle of equal rights and self-determination of peoples constitutes a significant contribution to contemporary international law, and that its effective application is of paramount importance for the promotion of friendly relations among States, based on respect for the principle of sovereign equality,"[96]

111. Sovereign equality implies more than equal formal status to all states. It provides that no State has more rights than any other State. As stated by the Permanent Court of International Justice (PCIJ) in *The Case of S.S. Lotus*,

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95 U.N. Charter art. 1, para. 2 (The purposes of the United Nations are: […] To develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples); *see also* art. 2, para. 1 (The Organization is based on the principle of the sovereign equality of all its Members).

96 G.A. Res. 2625 (XXV), Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations (A/8082), at 122 (Oct. 24, 1970).

> "'[T]he principles of international law' … are in force between all independent nations and … therefore apply equally to all the contracting Parties."[97]

112. Sovereign equality means also that States must respect the equal sovereignty of other States and hence may not cause, by acts or omissions, significant harm to them or to common resources. As this Court has stated early on, "[I]n general international law it is "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States."[98]

113. The same obligation not to cause significant harm applies to the common marine environment. States have both a direct duty not to degrade the marine environment as well as a duty "in relation to ensuring activities within their jurisdiction and control do not harm the marine environment".[99]

114. In the *Pulp Mills* case, the Court elaborated on this "principle of obligation," as follows:

> "The Court points out that the principle of prevention, as a customary rule, has its origins in the due diligence that is required of a State in its territory. It is "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States" (Corfu Channel (United Kingdom v. Albania), Merits, Judgment, I.C.J. Reports 1949, p. 22). A State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State. This Court has established that this obligation "is now part of the corpus of international law relating to the environment" (Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996 (I), p. 242, para. 29)."[100]

States Have an Obligation not to Use More than an Equitable and Reasonable Share of Common Resources

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97 S.S. 'Lotus' (France v. Turkey.), Judgment, 1927 P.C.I.J. (ser. A) No. 10 (Sept. 7), ¶ 37.

98 Corfu Channel (United Kingdom v. Albania), Merits, Judgment, 1949 I.C.J. (Apr. 9) (1949 I.C.J. Rep., p. 22).

99 In the Matter of the South China Sea Arbitration before an Arbitral Tribunal Constituted Under Annex VII to the 1982 United Nations Convention on the Law of the Sea (Permanent Court of Arbitration, Case No. 2013–19, July 12, 2016) (Philippines v China) (Award), ¶ 944.

100 Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Rep. 2010 (Apr. 20), p. 14, ¶ 101; The Court has subsequently referred to the prevention principle, including the requirement of "significance", in Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) I.C.J. Rep. 2018 (Feb. 2), p. 15 and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Judgment, I.C.J. Rep. 2015 (II) (Dec. 16), p. 706, ¶ 104; Dispute over the Status and Use of the Waters of the Silala (Chile v. Bolivia), Judgment, I.C.J. Rep. 2022 (Dec. 1), p. 614, ¶¶ 83, 99.

115. Another manifestation of sovereign equality that is deeply embedded in international law is that all sovereigns are equally entitled to enjoy access to shared common resources yet not use up more than their equitable and reasonable share of such resources.

116. The transformational moment for the current system of international law, that is based on sovereign equality, can be traced back to Hugo Grotius's *Mare Liberum* (1609). That influential publication successfully challenged the earlier claim for unilateral appropriation of the High Seas.[101] Since then, global commons are recognized as *res communis*, "belonging to everyone or to no one."[102] As (then Professor) Hanqin Xue wrote in 2003,

> "In recent years, the idea of claims for damage to the global commons has gained force, as communal interests in the protection of the commons come to be recognized and expressed in various legal instruments. It is still arguable, however, that all States parties to such instruments have the responsibility to protect the natural environment and the common areas, and the correlative rights to see others do so. In this regard, whether the commons as *res communis* or *res nullius* is no longer relevant."[103]

117. The principle of sovereign equality shaped the evolution of the law on shared natural resources during the nineteenth and twentieth centuries. The first subject of international regulation was international watercourses.[104] All matters related to their regulation,

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101 *See* Hugo Grotius, THE FREEDOM OF THE SEAS (Trans. with a revision of the Latin Text of 1633, Ralph Van Deman Magoffin, ed. James Brown Scott, New York: Oxford University Press, 1916).

102 *See* Hanqin Xue, TRANSBOUNDARY DAMAGE IN INTERNATIONAL LAW 193–196 (Cambridge University Press 2003) [hereinafter TRANSBOUNDARY DAMAGE INT'L LAW]; *see also* Nico Schrijver, *Managing the global commons: common good or common sink?*, 37 TWQ 1252–1267, 1253 (2016) ("The high seas, the deep seabed, outer space, the Moon and other celestial bodies, as well as the two polar regions, can be viewed as global commons because no national entity can claim sole jurisdiction over these physical areas. […] it can be argued that certain global natural assets, such as the climate system, the air, water, seeds, winds and sunshine, could also be viewed as global commons in view of the vital ecological functions that they perform for the Earth and its population"); *see also* Malgosia Fitzmaurice, *Liability for Environmental Damage Caused to the Global Commons*, REV. EUR. COMP. & INT'L ENVTL. L. 305–311 (1996).

103 TRANSBOUNDARY DAMAGE INT'L LAW, *supra* note 102, at 6–7.

104 *See* Juraj Andrassy, LES RELATIONS INTERNATIONALES DE VOISINAGE 79 (Vol. 79 RdC, 1951) (French, discussion within 73–182).

including the delineation of boundaries along shared rivers,[105] navigational[106] and non-navigational[107] uses of such rivers, were all based on the principle of sovereign equality, even if sometimes other concepts such as good-neighbourliness[108] or *sic utere tuo ut alienum non laedas* (use your own property so as not to injure that of another),[109] were invoked.

118. The 1911 Resolution of the Institut de Droit International *Réglementation internationale de l'usage des cours d'eau internationaux en dehors de l'exercice du droit de navigation* provided that riparian States were all entitled to the same access and use of international rivers and lakes. It therefore stated that:

> "1. Lorsqu'un cours d'eau forme la frontière de deux Etats, aucun de ces Etats ne peut, sans l'assentiment de l'autre, et en l'absence d'un titre juridique spécial et valable, y apporter ou y laisser apporter par des particuliers, des sociétés, etc. ... des changements préjudiciables à la rive de l'autre Etat. D'autre part, aucun des deux Etats ne peut, sur son territoire, exploiter ou laisser exploiter l'eau d'une manière qui porte une atteinte grave à son exploitation par l'autre Etat ou par les particuliers, sociétés, etc., de l'autre. Les dispositions qui précèdent sont également applicables lorsqu'un lac s'étend entre les territoires de plus de deux Etats."[110]

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105 *Id*., at 147–148 ("La frontière est formée par la ligne médiane du cours d'eau et le cas échéant par la lignemédiane de son bras principal. Pour déterminer cette ligne médiane, il convient de partir duprincipe que les riverains doivent pouvoir accéder à l'eau sans quitter le territoire national, quelque soit le niveau des eaux. Par ligne médiane, il faut entendre une ligne égalisée et continue, àdistance égale des deux bords du cours d'eau (bras principal).").

106 Case Relating to the Territorial Jurisdiction of the International Commission of the River Oder, 1929 P.C.I.J. (ser. A) No. 23 [hereinafter River Order].

107 Gabčíkovo-Nagymaros Project (Hungary/Slovakia), Judgment, I.C.J. Rep. 1997 (Sept. 25), p. 7; *see also* Convention on the Law of the Non-navigational Uses of International Watercourses, May 21, 1997, 2999 U.N.T.S 77 (entered into force Aug. 17, 2014).

108 On good neighbourliness as the basis for the law on shared watercourses, *see* Laurence Boissons de Chazourness and Danio Campanelli, *Neighbour States*, OXFORD PUBLIC INTERNATIONAL LAW: MAX PLANCK ENCYCLOPEDIAS OF INTERNATIONAL LAW [MPIL] (Dec. 2006), *available at* https://opil.ouplaw.com/display/10.1093/law:epil/9780199231690/law-9780199231690-e1072#; *see also* Juraj Andrassy, *supra* note 104.

109 ULRICH BEYERLIN, THILO MARAUHN, INTERNATIONAL ENVIRONMENTAL LAW 285 (1st ed. 2011) (on the maxim of sic utere tuo ut alienum non laedas as a general principle that subsequently evolved into the harm prevention rule); Juttaa Brunnée, *Sic utere tuo it alienum non laedas*, Oxford Public Internaitonal Law: Max Planck Encyclopedias of International Law [MPIL] (Jan. 2022) https://opil.ouplaw.com/display/10.1093/law:epil/9780199231690/law-9780199231690-e1607?prd=MPIL#law-9780199231690-e1607-div1-1.

110 Institut de Droit International, *Réglementation internationale de l'usage des cours d'eau internationaux en dehors de l'exercice du droit de navigation*, Déclaration de Madrid (Apr. 20, 1911), ¶ 1.

119. According to Professor Juraj Andrassy in his Hague Lectures,[111] that approach is based on the principle of sovereign equality:

> "Cette règle est couverte par la formule plus générale adoptée par l'Institut de droit international à sa session de Madrid. Quant au partage des quantités, chaque riverain a un droit égal, il peut donc disposer de la moitié des quantités disponibles, sans tenir comptedes proportions, d'ailleurs très variables, dans les quantités qui se trouvent effectivement séparées par la ligne frontière."[112]

120. The same principle of equal rights in sharing common resources was invoked by the 1993 Montevideo Declaration of the Pan-American Union, Organization of American States, concerning the Industrial and Agricultural Use of International Rivers:[113]

> "2. The States have the exclusive right to exploit, for industrial or agricultural purposes, the margin which is under their jurisdiction, of the waters of international rivers. This right, however, is conditioned in its exercise upon the necessity of **not injuring the equal right** due to the neighbouring State over the margin under its jurisdiction. In consequence, no State may, without the consent of the other riparian State, introduce into water courses of an international character, for the industrial or agricultural exploitation of their waters, any alteration which may prove injurious to the margin of the other interested State."[114] (emphasis added).

121. The link between sovereign equality and the right to equitable and reasonable share of global commons was recognized by the Institut de Droit International in its 1961 Resolution on the Utilisation of Non-maritime International Waters (Except for Navigation).[115] The Resolution is imbued with the principle of sovereign equality as it underlines the various equal duties that States sharing such international waters have toward each other:

> "Considering that the obligation not to cause unlawful harm to others is one of the basic general principles governing neighborly relations. […] Article 2: Every State has the right to utilize waters which traverse or border its territory, subject to the limits imposed by international law … This right is limited by the right of utilization of other States interested in the same watercourse or hydrographic basin.

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111 Juraj Andrassy, *supra* note 104, at 119.

112 *Id*.

113 Pan American Union, Seventh International Conference of American States, *Plenary Sessions, Minutes and Antecedents* (Montevideo, 1933).

114 *Id*., at 114.

115 Institut de Droit International, *Utilisation of Non-maritime International Waters (Except for Navigation)*, Session of Salzburg (Sept. 11, 1961) (The French text is authoritative. The English text is a translation.).

> Article 3: If the States are in disagreement over the scope of their rights of utilization, settlement will take place on the basis of equity, taking particular account of their respective needs, as well as of other pertinent circumstances.
>
> Article 4: No State can undertake works or utilizations of the waters of a watercourse or hydrographic basin which seriously affect the possibility of utilization of the same waters by other States except on condition of assuring them the enjoyment of the advantages to which they are entitled under article 3, as well as adequate compensation for any loss or damage."

122. That shared natural resources must be subject to equitable and reasonable sharing by states was recognized by the PCIJ in the *River Oder judgment*,[116] and by this Court in the *Gabcikovo/Nagimaros Project* case.[117] In the *River Oder* judgement, the PCIJ found the international river as the object of a "common legal right" of the riparian States,

> "the essential features of which are the perfect equality of all riparian States in the user of the whole course of the river and the exclusion of any preferential privilege of any one riparian State in relation to the others."[118]

123. In the *Gabcikovo/Nagimaros Project* case, the Court adopted and extended the said principle to non-navigational uses of international watercourses, and on this basis criticized Czechoslovakia's "unilaterally assuming control of a shared resource, and thereby depriving Hungary of its right to an equitable and reasonable share of the natural resources of the Danube."[119]

124. The 1997 Convention on Non-Navigational Uses of International Watercourses,[120] which the Court in its *Gabcikovo/Nagimaros Project* judgment found to reflect customary international law,[121] also invokes the principle of equitable and reasonable use and the obligation not to cause significant harm to other riparian States. Crucially, demonstrating the riparian States' common obligations to all individuals under their jurisdiction, regardless of their citizenship, the Convention adds that in the event of a conflict between

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116 River Order, *supra* note 106.

117 Gabčíkovo-Nagymaros Project, *supra* note 107, p. 7.

118 River Order, *supra* note 106, at 27.

119 Gabčíkovo-Nagymaros Project, *supra* note 107, ¶ 86.

120 Convention on the Law of the Non-navigational Uses of International Watercourses, *supra* note 107.

121 Gabčíkovo-Nagymaros Project, *supra* note 107, ¶ 85.

uses of an international watercourse, it shall be resolved "with special regard being given to the requirements of vital human needs."[122]

125. In *Dispute over the Status of the Waters of the Silala (Chile v. Bolivia),* [123] the Court said:

> "[T]he concept of an international watercourse in customary international law does not prevent the particular characteristics of each international watercourse being taken into consideration when applying customary principles. […] **the Parties agree that under customary international law they are both equally entitled to the equitable and reasonable use of the Silala's waters**."[124] (emphasis added).

126. The Court further emphasized that the right comes with a corresponding obligation.

> "Under customary international law, every riparian State has a basic right to an equitable and reasonable sharing of the resources of an international watercourse […]. This implies both a right and an obligation for all riparian States of international watercourses: **every such State is both entitled to an equitable and reasonable use and share, and obliged not to exceed that entitlement by depriving other riparian States of their equivalent right to a reasonable use and share**. […] In the present case, under customary international law, the Parties are both entitled to an equitable and reasonable use of the waters of the Silala as an international watercourse and obliged, in utilizing the international watercourse, to take all appropriate measures to prevent the causing of significant harm to the other Party." [125]

127. The atmosphere and the marine environment constitute global commons, just like the High Seas and other common resources.[126] The right to enjoy an equitable and reasonable share of the common resources and the obligation not to cause significant harm to them apply with equal force to the protection of those global resources. The Court has confirmed several times that principle of prevention of significant environmental harm is part of customary international law, including in "areas beyond national control."[127]

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122 Convention on the Law of the Non-navigational Uses of International Watercourses, *supra* note 107, art. 10(2).

123 Dispute over the Status and Use of the Waters of the Silala, *supra* note 100, ¶ 95.

124 *Id*.

125 *Id*., ¶ 97.

126 TRANSBOUNDARY DAMAGE INT'L LAW, *supra* note 102, at 193.

127 Gabcikovo-Nagymaros Project, *supra* note 107, ¶ 140; Pulp Mills, *supra* note 100, ¶ 101; Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) I.C.J. Rep. 2018 (Feb. 2), p. 15 and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Judgment, I.C.J. Reports 2015 (II), p. 706, ¶ 104; Dispute over the Status and Use of the Waters of the Silala, *supra* note 100, ¶¶ 83, 99.

128. As the Court stated in *Alleged Violations of Sovereign Rights and Maritime Spaces in the Caribbean Sea (Nicaragua v. Colombia),*[128]

> "[I]it is not contested between the Parties that all States have the obligation under customary international law to protect and preserve the marine environment."[129]

The Court delineates how this obligation is allocated in areas that are subject to the control of specific States:

> "In the exclusive economic zone, however, it is the coastal State that has jurisdiction to discharge that obligation. […] A third State, in the capacity of a flag State, also has "an obligation to ensure compliance by vessels flying its flag with relevant conservation measures concerning living resources enacted by the coastal State for its exclusive economic zone."[130]

129. The global carbon budget, including the remaining carbon budget as defined by the IPCC and invoked by the German Federal Constitutional Court fits the definition of a global commons,[131] which all States must share in an equitable and reasonable way, without causing significant harm to it. Therefore, by consuming more than their fair share of the carbon budget, and causing harm to the atmosphere, the major polluting States consumed more than their fair and equitable share of the collective carbon budget, and ignored their obligation not to cause significant harm to it. They thereby breached their obligations to all other states, and especially to certain States, among them low-lying island States such as Kiribati.

130. This obligation has an *erga omnes* character. That the obligation with respect to global commons is of an *erga omnes* character has been recognized by the Institut de Detroit International in its 2005 Resolution on Obligations *Erga Omnes* in International Law.[132] The first two preambular paragraph provide:

> "Considering that under international law, certain obligations bind all subjects of international law for the purposes of maintaining the fundamental values of the international community;

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128 Alleged Violations of Sovereign Rights and Maritime Spaces in the Caribbean Sea (Nicaragua v. Colombia), Judgment, I.C.J. Rep. 2022 (Apr. 21), p. 266, ¶ 95.

129 *Id*.

130 *Id*. (citing Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission, Advisory Opinion, Apr. 2, 2015, ITLOS Rep. 37, ¶ 120.)

131 BVERFGE, 1 BvR 2656/18, *supra* note 90, ¶ 36.

132 *See*, Institut de Droit International, Resolution on Obligations *Erga Omnes* in International Law, Aug. 27, 2005, Krakow.

> *Considering* that a wide consensus exists to the effect that the prohibition of acts of aggression, the prohibition of genocide, obligations concerning the protection of basic human rights, obligations relating to self-determination **and obligations relating to the environment of common spaces** are examples of obligations reflecting those fundamental values;"[133]

131. The atmosphere and the marine environment present a space where some GHG emission could be tolerated. In other words, the international community has, or had, a global carbon budget,[134] that States could collectively share. Grounded on the same principle of sovereign equality, States' use of this global carbon budget must have been subjected to the same rules of equitable and reasonable use and of not causing significant harm, taking into account current and future needs, and most importantly, paying special regard to the requirements of vital human needs.

States Have Obligations to Respect and Promote the Equal Rights of Other States and their Right to Continue Exercising their Right to Self-Determination

132. Beyond the obligations States have with respect to their own use of global commons, States have obligations to those States that are specifically affected by the Conduct. This obligation concerns particularly affected States, most prominently low-lying small island States whose territorial integrity is threatened by the consequences of the Conduct. Even more pronounced obligations exist toward those small island States whose peoples' ability to continue to exercise their self-determination and to control their natural resources are jeopardized as a result of the Conduct.

133. The States whose acts and omissions contributed to the harm to the climate and environment change have thereby also contributed to the jeopardizing the territorial integrity and even the very ability of some States to exercise their peoples' self-determination.

134. But even without assigning responsibility for States for causing such harms by their acts or omissions, States may be responsible for failing to comply with their obligations to act positively to mitigate the harsh consequences of those harms or facilitate the adaptation to the climatic disaster. This is especially the case when the certain States face

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133 *Id*.

134 BVERFGE, 1 BvR 2656/18, *supra* note 90, ¶ 36.

a threat to their territorial integrity as a result of inundation and even loss of their ability to exercise self-determination.

135. The Friendly Declaration elaborates on the principle of sovereign equality, recognizing positive duties incumbent upon states:

> *"*In particular, sovereign equality includes the following elements: […]
> c. Each State has the duty to respect the personality of other States;
> d. The territorial integrity and political independence of the State are inviolable;

136. The duty of all States to act positively to facilitate the realization of other people's right to self-determination is firmly grounded in international law.[135] This positive duty has been recognized by the Court in the *Palestinian Wall* Advisory Opinion.[136] In this Court's *Advisory Opinion on Legal Consequences of the Separation of the Chagos Archipelago from Mauritius in 1965*, the Court relied on the Friendly Relations Declaration, stating that:[137]

> "Since respect for the right to self-determination is an obligation *erga omnes,* all States have a legal interest in protecting that right [..]. The Court considers that, … all Member States must co-operate with the United Nations to put those modalities into effect." [138]

137. According to the Human Rights Committee's General Comment No. 12 on the right to self-determination, "all States parties to the Covenant should take positive action to facilitate realization of and respect for the right of peoples to self-determination." [139] This

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135 The Office of the High Commissioner for Human Rights therefore concluded that "States have a duty to take action, individually and jointly, to address and avert threats to the right to self-determination by mitigating climate change." *See* Frequently Asked Questions on Human Rights and Climate Change, Fact Sheet No. 38 (2021) at 6, *available at* https://www.ohchr.org/sites/default/files/Documents/Publications/FSheet38_FAQ_HR_CC_EN.pdf

136 2004 I.C.J. 136, *supra* note 4, ¶ 159 ("It is also for all States, while respecting the United Nations Charter and international law, to see to it that any impediment, resulting from the construction of the wall to the exercise by the Palestinian people of its right to self-determination is brought to an end.").

137 2019 I.C.J. 97, *supra* note 4, ¶ 180.

138 *Id*. *See also* the case of *East Timor (Portugal v. Australia)*, Judgment, I.C.J. Reports 1995, p. 90, "[t]he principle of self-determination ... ha[ving] an *erga omnes* character … is one of the essential principles of contemporary international law." As interpreted by the Commentary on the Draft articles on Responsibility of States for Internationally Wrongful Acts (ARSIWA), this reference implies that the right "gives rise to an obligation to the international community as a whole to permit and respect its exercise." Draft articles on Responsibility of States for Internationally Wrongful Acts, with commentaries 2001, 2 Y.B. INT'L L. COMM'N 113, ¶ 5, U.N. DOC. A/RES/56/83.

139 U.N. Human Rights Committee (UNHRC), *General Comment No. 12: Article 1 (Right to Self-determination) The Right to Self-determination of Peoples*, 21st Sess., U.N. DOC. HRI/GEN/1/Rev.1. (Mar. 13, 1984), ¶ 6 [herein after UNHRC General Comment No. 12].

implies the duty "to take positive action, individually and jointly, to address and avert [the threat that climate change poses to the right of peoples to self-determination]."[140]

138. Climate change threatens the ability of low-lying small island states, including, and perhaps primarily, the Republic of Kiribati, to exercise their right to self-determination, as the nation loses much of its land resources, and the people are being fragmented as families are required to dislocate and entire island communities are uprooted from their homelands and dispersed in other locations around the country, and others are being forced to migrate to foreign countries. The integrity of the people is threatened and its ability to exercise its right to self-determination on its own territory is challenged.

139. These adverse consequences were captured in the 2016 Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment:

> "Climate change threatens the very existence of some small island States. Global warming expands ocean waters and melts land-based ice, causing sea levels to rise. Long before islands are inundated, climate change may make them uninhabitable by increasing the frequency and severity of storm surges or by causing sea water to invade their freshwater resources." [141]

140. Therefore, by consuming more than their fair share of the atmosphere, and causing harm to it, the major polluting States have breached their duties to respect and ensure the ability of low-lying states, including the Republic of Kiribati, to continue to exercise their right to self-determination. In addition, these and other States that will have not come to the assistance of the victim States, at least by recognizing the victim States' right to maintain their sovereignty and territorial integrity, will have breached their obligation to positively secure the right of threatened peoples to their self-determination.

States have Positive Obligations to Promote Self-Determination in line with the Obligation of Due Diligence, and the Principle of Common but Differentiated Responsibilities

141. The obligation incumbent upon all States, individually and jointly, to respect and protect the rights of other States to continue to exercise their peoples' right to self-determination

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[140] Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights A/HRC/10/61 (2009), at pp 14-15.

[141] Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, U.N. DOC. A/HRC/31/52 (Feb. 1, 2016), ¶ 29.

is subject to two conditioning considerations: the principles of due diligence and common but differentiated responsibilities.

Due Diligence

142. In fulfilling the above-mentioned obligations, States are required to exercise due diligence. This Court has frequently affirmed this duty of due diligence under general international law and also in the context of transboundary resources.[142]

143. As this Court has recently noted, and in the context of environmental protection, as a corollary of the obligation of every State not to allow knowingly its territory to be used for acts contrary to the rights of other States,

> "'A State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State' in a transboundary context, and in particular as regards a shared resource."[143]

144. This obligation entails a positive obligation of all States to exercise due diligence in the prevention of reasonably foreseeable harm from activities within their jurisdiction or control had crystallised as a primary obligation of international law by the end of the nineteenth century.

145. This obligation is obviously incumbent upon States who have contributed over the years to the climate crisis through their Conduct. Bearing responsibility for causing the significant harm to our planet and taking much more that their fair share of the carbon budget, their responsibility for their past acts and omission is beyond dispute. But at the same time, given the limited carbon budget that remains, and the likely risks to some states, and in particular low-lying island States such as Kiribati, the obligation extends to

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142 *See e.g.,* Dispute over the Status and Use of the Waters of the Silala, *supra* note 100, ¶ 99 (citing Corfu Channel (United Kingdom v. Albania), Merits, Judgment, I.C.J. Rep. 1949, p. 22); Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996 (I), p. 242, ¶ 29; Pulp Mills, *supra* note 100, ¶ 101; Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Judgment, I.C.J. Reports 2015 (II), p. 706, ¶ 104.

143 Dispute over the Status and Use of the Waters of the Silala, *supra* note 100, ¶ 99 (citing Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010 (I), p. 55-56, ¶ 101); Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, I.C.J. Reports 1996 (I), p. 242, ¶ 29; Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Judgment, I.C.J. Reports 2015 (II), p. 706, ¶ 104.

all states to exercise due diligence in their respective efforts to take the remaining carbon budget into account.

Common But Differentiated Responsibilities

146. The principle of 'common but differentiated responsibilities' embodies a collective acknowledgment of the shared challenge of addressing global issues such as climate change, environmental degradation, and sustainable development, while recognizing the diverse capacities and historical contributions of nations. This principle reflects the obligation to reverse long-term practices that have burdened the atmosphere, the seas, and the consumption of a large share of the common carbon budget, along with an understanding that responsibility for addressing them should be distributed fairly.

147. This principle underscores the importance of collaboration in tackling common challenges, yet it also emphasizes that responsibilities should be distributed in a manner that reflects disparities in economic development, historical contribution to GHG emissions, and capabilities. In essence, it advocates for tailored approaches that consider the unique circumstances and vulnerabilities of different countries.

148. As Professor Hanqin Xue explained,

> "[G]lobal actions in addressing climate change should be taken in accordance with the principle of common, but differentiated responsibilities. […] Due to their historical emissions accumulated during the industrialization process and unsustainable economic model and high consumption, developed countries … should take serious actions to reduce their emissions and honour their commitments under the Kyoto Protocol. Moreover, given their financial capacity and advanced low-carbon technologies, they should provide necessary technological and financial assistance to the developing countries and help them build up technical capacities to cope with climate change."[144]

149. The principle of 'common but differentiated responsibilities' is deeply intertwined with the principle of due diligence. In fact, it can be said to be a manifestation of due diligence. This is manifested in the position of the International Law Commission in its Commentary to its Articles on International Liability for Injurious Consequences Arising

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144 TRANSBOUNDARY DAMAGE INT'L LAW, *supra* note 102, at 180–181.

Out of Acts Not Prohibited by International Law.[145] In the Commentary to Article 3 ("Prevention: The State of origin shall take all appropriate measures to prevent significant transboundary harm or at any event to minimize the risk thereof.") the ILC referred to principle 11 of the Rio Declaration which stipulates that "Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries,"[146] and to "[s]imilar language [that] is found in principle 23 of the Stockholm Declaration."[147] The ILC pointed out that "[t]he economic level of States is one of the factors to be taken into account in determining whether a State has complied with its obligation of due diligence."[148] It then emphasizes:

> "The main elements of the obligation of due diligence involved in the duty of prevention could be thus stated: the degree of care in question is that expected of a good Government. […] It is, however, understood that the degree of care expected of a State with a well-developed economy and human and material resources and with highly evolved systems and structures of governance is different from States which are not so well placed."[149]

150. As stated by Professor Xue,

> "The principle of common but differentiated responsibilities recognizes the limits on the equality of States. It is generally agreed that the major polluters should bear a heavier responsibility to redress the consequences to the world environment."[150]

Professor Xue adds that, accordingly,

> "[a]s the major contributors to atmospheric damage, industrial countries are rightfully held responsible for the present state of climate change under the [United Nations Framework Convention on Climate Change]."[151]

151. Professor Xue refers to the principle of common but differentiated responsibilities as a result of an understanding that the equality of states is "limited." Perhaps an additional

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145 International Law Commission, *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, Supplement No. 10 (A/56/10), chp.IV.E.1, November 2001 (commentary to Article 3, ¶12, 'Draft articles on prevention of transboundary harm from hazardous activities: Text of the draft articles with commentaries thereto'), *available at* https://legal.un.org/ilc/documentation/english/reports/a_56_10.pdf#page=149 Id., at 144.

146 *Id*., commentary to Article 3, ¶ 13 at 155.

147 *Id*.

148 *Id*.

149 *Id*., commentary to Article 3, ¶ 17, at 155.

150 TRANSBOUNDARY DAMAGE INT'L LAW, *supra* note 102, at 230.

151 *Id*., at 227.

way to understand this principle is to regard it as respecting the principle of sovereign equality, especially as it pertains to the duty to protect *erga omnes* and *jus cogens* obligations, such as the principle of peoples' self-determination.

152. Certain States have both emitted a lot since the industrial revolution and thereby gained significant capacities to address the climate crisis. These States are consequently both more responsible than others for the climate crisis, and they are better positioned to contribute to reducing the harsh consequences of that crisis. Certainly, they are more capable of doing so than States whose part of the conduct has been insignificant, which are exposed to a greater share of the risk, including a risk to their very survival and to the lives of their citizens, whose subjection to colonization involved robbing them of much of their natural resources,[152] and whose resources are insufficient to address these risks.

153. On the other side, there are other States that due to the same historical and economic differences have been rendered more vulnerable to the effects of climate change and less capable of adapting to them. This is especially the case of former colonies, such as the Republic of Kiribati, whose natural resources have been depleted during the colonial period, and whose geographical position renders them particularly vulnerable to climatic changes. Particularly vulnerable are indigenous communities whose exposure to climate change significantly affects their culture and traditions. As three UN Special Rapporteurs have stated in their Amicus brief submitted to the Inter-American Court for Human Rights as part of the pending request for an Advisory Opinion on Climate Emergency and Human Rights,

> "Indigenous Peoples are particularly vulnerable where processes of colonization have deprived them of ownership of their traditional territories, targeted these lands for extractive industries, and failed to provide adequate investment in adaptation."[153]

154. As this submission elaborates in Part III, this dire situation is especially the lot for the Republic of Kiribati, as it is for other low-lying developing island states.

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[152] On the economic and political background of the Republic of Kiribati upon gaining independence from British rule in 1979, *see* Howard Van Trease, Ed., ATOLL POLITICS: THE REPUBLIC OF KIRIBATI (1993), esp. 226–228.

[153] Special Rapporteurs on Toxics and Human Rights (Marcos Orellana), Human Rights and the Environment (David Boyd), and the Right to Development (Surya Deva), Amicus Brief (Nov. 22, 2023), Request for an Advisory Opinion on the Scope of the State Obligations for Responding to the Climate Emergency, Inter-Am. Ct. H.R., *available at* https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2023/20231125_18528_na.pdf.

ii. International Human Rights Law

155. State parties to international human rights treaties commit to respect protect and ensure human rights "within their jurisdiction."[154]

156. In *Legal Consequences of the Construction of a Wall in the Occupied Palestinian* Territory*, Advisory Opinion*,[155] the Court interpreted that provision. It found that:

> "[W]hile the jurisdiction of States is primarily territorial, it may sometimes be exercised outside the national territory. Considering the object and purpose of the International Covenant on Civil and Political Rights, it would seem natural that, even when such is the case, States parties to the Covenant should be bound to comply with its provisions."[156]

157. The Court grounded its findings *inter alia*¸ on the *travaux preparatoires* of the Covenant, which, according to the Court, showed that "the drafters of the Covenant did not intend to allow States to escape from their obligations when they exercise jurisdiction outside their national territory."[157] It follows, *a fortiori*, that the Covenant did not intend to allow States to escape from their obligations when they exercise jurisdiction within their national territory and that exercise of jurisdiction causes human rights violations to persons residing abroad.

158. This interpretation is consistent with the fundamental obligation elaborated above concerning the obligation of all States not to allow their territory to be used for acts contrary to the rights of other States.

159. Inspired by this Court's jurisprudence, the Inter-American Court of Human Rights recognized in its Advisory Opinion, issued in 2017, the applicability of States' international human rights obligations to avoid transboundary environmental damage that can affect the human rights of individuals outside their territory:

> "The obligations to respect and to ensure human rights require that States abstain from preventing or hindering other States Parties from complying with the obligations derived from the [American]

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154 *Cf* 2004 I.C.J. 136, *supra* note 4, at 136.

155 *Id*., ¶ 109.

156 *Id*.

157 *Id*.

> Convention []. Activities undertaken within the jurisdiction of a State Party should not deprive another State of the ability to ensure that the persons within its jurisdiction may enjoy and exercise their rights under the Convention. The Court considers that States have the obligation to avoid transboundary environmental damage that can affect the human rights of individuals outside their territory. For the purposes of the American Convention, when transboundary damage occurs that effects treaty-based rights, it is understood that the persons whose rights have been violated are under the jurisdiction of the State of origin, if there is a causal link between the act that originated in its territory and the infringement of the human rights of persons outside its territory." [158]

160. The same approach was taken by the UN Human Rights treaty bodies such as the Human Rights Committee[159] and the Committee on the Rights of the Child.[160]

161. This is certainly the case if one regards the Universal Declaration of Human Rights as reflecting customary international law.[161] The UDHR expressly extends its coverage to "[a]ll human beings"[162] without delimiting any territorial restriction on States' obligations to respect, protect and fulfil them.

162. In light of the above, the International Covenant on Civil and Political Rights is also applicable in respect of the Conduct of States parties to the convention to the extent that the conduct infringed the enumerated rights of persons living abroad, including in low-lying small developing islands like Kiribati.

The Right to Life

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158 State obligations in relation to the environment in the context of the protection and guarantee of the rights to life and to personal integrity (Arts. 4(1) and 5(1) in relation to Arts. 1(1) and 2 American Convention on Human Rights), Advisory Opinion OC-23/17, Inter-Am. Ct. H.R., ¶ 101 (Nov. 15, 2017).

159 Human Rights Committee, *General Comment No. 36: Article 6: Right to Life* U.N. DOC. CCPR/C/GC/36 (Sept. 3, 2019) ¶¶ 62, 63 ("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. […] a State party has an obligation to respect and ensure the rights under article 6 of all persons who are within its territory and all persons subject to its jurisdiction, that is, all persons over whose enjoyment of the right to life it exercises power or effective control.").

160 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*, U.N. DOC. CRC/C/GC/26 (Aug. 22, 2023) ¶ ¶ 84, 86, 106.

161 2019 I.C.J. 97, *supra* note 4, ¶ 35 ("Certainly the [UDHR] reflects customary international law"). In the regional context, *see e.g.*, Anudo Ochieng Anudo v. United Republic of Tanzania, No. 012/2015, Judgment, ¶ 76 (Afr. Ct. on Hum. and Peoples' Rts. Mar. 22, 2018) (recognizing the UDHR as "forming part of Customary International Laws").

162 G.A. Res. 217A (III), U.N. DOC. A/810 at 71 (1948), Universal Declaration of Human Rights (UDHR), Dec. 10, 1948, Art. 1.

163. The right to life under Article 6(1) of the I International Covenant on Civil and Political Rights (ICCPR)[163] is clearly impaired by the Conduct. As the Human Rights Committee pointed out in *Billy v. Australia*[164]:

> "[T]he obligation of States parties to respect and ensure the right to life extends to reasonably foreseeable threats and life-threatening situations that can result in loss of life. […] The Committee considers that such threats may include adverse climate change impacts, and recalls 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."[165]

164. The Human Rights Committee's General Comment on the right to life (Article 6 of the ICCPR)[166] stated that "environmental degradation can compromise effective enjoyment of the right to life, and […] severe environmental degradation can adversely affect an individual's well-being and lead to a violation of the right to life."[167]

The Right to family and community life

165. In *Billy v. Australia*, the Human Rights Committee found a violation of Article 17 of the ICCPR, that:

> "when climate change impacts – including environmental degradation on traditional [indigenous] lands in communities where subsistence is highly dependent on available natural resources and where alternative means of subsistence and humanitarian aid are unavailable – have direct repercussions on the right to one's home, and the adverse consequences of those impacts are serious because of their intensity or duration and the physical or mental harm that they cause, then the degradation of the environment may adversely affect the well-being of individuals and constitute foreseeable and serious violations of private and family life and the home"[168]

166. In the same case, the Human Rights Committee also found a violation of Article 27 of the ICCPR:

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163 International Covenant on Civil and Political Rights, Dec. 16, 1966, 999 U.N.T.S. 171.

164 Human Rights Committee, U.N. DOC. CCPR/C/135/D/3624/2019, Views adopted by the Committee under article 5 (4) of the Optional Protocol, concerning communication No. 3624/2019, (Sept. 22, 2022) [hereinafter Billy v. Australia].

165 *Id*., ¶ 8.3.

166 Human Rights Committee, *General Comment No. 36: Article 6: Right to Life*, U.N. DOC. CCPR/C/GC/36 (Sept. 3, 2019), ¶ 62.

167 Billy v. Australia, *supra* note 164, ¶¶ 8.4–8.5.

168 Billy v. Australia, *supra* note 164, at ¶ 8.12.

> "The Committee recalls that, in the case of indigenous peoples, the enjoyment of culture may relate to a way of life which is closely associated with territory and the use of its resources, including such traditional activities as fishing or hunting. Thus, the protection of this right is directed towards ensuring the survival and continued development of the cultural identity. The Committee further recalls that article 27 of the Covenant, interpreted in the light of the United Nations Declaration on the Rights of Indigenous Peoples, enshrines the inalienable right of indigenous peoples to enjoy the territories and natural resources that they have traditionally used for their subsistence and cultural identity."[169]

167. As in the case of *Billy v. Australia*, the rights of the people of Kiribati under Articles 17 and 27 of the ICCPR are infringed due to the impairment of their ability to maintain their culture, due to the reduced viability of their islands and the surrounding seas, owing to climate change impacts.[170] For example, Mr. Kiaitonga Burera, an elder in his community, laments the fact that his eldest son does not remember the original village they had to leave due to climate change, and describes in his testimony how the submergence of land has had dire effects on the social structures of the community:

> "*In the past*, there *was strong system for the village, with one leader for the village, and our church to also manage the village. Now, it's the same, but disjointed.*"[171]

And he adds:

> "*People of Abaiang, including my village are connected to the sea and to the land. Imagine that in the past, in the old place, it was a big community with big land. Now since we relocated, we are scattered. Broken. In the past, all this was in the vast place. There was a bond between us because they live closely, now it is not the same. Now we all live far apart.*"[172]

The Human Right of Peoples to Self-Determination

168. As mentioned above, all States have obligations to respect and to actively promote the existing rights of peoples to continue to enjoy their self-determination. International human rights law bolsters this right as constituting also a human right.

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169 *Id*., ¶ 8.13

170 *Compare Id*., ¶ 8.14.

171 Annex 2, Statement 12, para 6.

172 *Id.*, para 11.

169. The right to self-determination encompasses the right of peoples to exercise control over their territory and their right to their permanent sovereignty over natural resources, which this Court has confirmed is a customary norm.[173] As the Inter-American Court for Human Rights has observed,

> "[T]he close ties of indigenous people with the land must be recognized and *understood* as the fundamental basis of their cultures, their spiritual life, their integrity, and their economic survival. For indigenous communities, relations to the land are not merely a matter of possession and production but a material and spiritual element which they must fully enjoy, even to preserve their cultural legacy and transmit it to future generations."[174]

170. Ms. Kautunata Kobia, of the Island of Abaiang, describes cultural loss when children are not able to train in soccer[175] or dance,[176] and the difficulties of maintaining a cultural and social life when the land this life was built around is no longer sustainable:

> "The *old* village has now been entirely destroyed by the sea. We lived in the new place for several years until the sea came again in our garden in 1998. At that time, I was feeling bored and sad because before we used to have community programs in the older village where we would all gather. Now that we have moved, gathering is becoming difficult because houses are far apart. Before if you need help, you don't have to ask for it, if the community members see that you need help they would just come and lend a hand. Now, it is different. Since we have been relocated, the families live on their own."[177]

171. In conclusion, the Republic of Kiribati submits that the Conduct and its effects on Kiribati and other low-lying small developing States entails the violation of several legal obligations incumbent upon States:

(a) The obligation not to cause significant harm to other states or to common resources – the atmosphere and the marine environment, as well as the global "carbon budget" all constituting commons resources;

(b) The obligation not to use more than an equitable and reasonable share of common resources;

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173 Armed Activities on the Congo (Congo v. Uganda), Judgement, I.C.J. Rep. 2005, p. 251–252, ¶ 244 (Dec. 19).

174 Mayagna (Sumo) Awas Tingni Community v. Nicaragua (Merits, Reparations and Costs), Judgment, Inter-Am. Ct. H.R. (ser. C) No. 79, ¶ 149 (Aug. 31, 2001).

175 Annex 2, Statement 5, para. 7.

176 *Id*., para. 14.

177 *Id*., para. 12.

(c) The obligation to respect and promote the equal rights of other states and their right to enjoy their territorial integrity and to continue exercising their right to self-determination; particularly toward those States that are specifically affected by the Conduct, and particularly toward low-lying small island States whose territorial integrity is endangered as a result of the Conduct, and toward peoples whose exercise of their right to self-determination and to control their natural resources is jeopardized as a result of the Conduct;

(d) The obligation to positively promote the self-determination of the Republic of Kiribati and other low-lying small island States, in line with the obligation of due diligence and the principle of common but differentiated responsibilities;

(e) The obligation, regardless of States' past Conduct, to act positively to secure against the harsh consequences of any such Conduct, at least by recognizing the existing rights of States whose control of certain parts of their land territory or other natural resources is precluded as a consequence of the Conduct; all States must accept that the integrity of all States is inviolable and their entitlement to self-determination is inalienable;

(f) The obligation to respect and protect the international human rights of individuals outside their jurisdiction when they exercise jurisdiction within their national territory and that exercise of jurisdiction causes human rights violations to persons residing abroad;

(g) More specifically, the obligation to respect and protect the internationally recognized rights to life, to family and community life, and to self-determination, of individuals and communities affected by the Conduct.

C. The Legal Consequences of the Violations of the Above-Mentioned Obligations

172. This section addresses Question (b) as formulated by the UN General Assembly in the operative part of Resolution 77/276, namely:

> (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?"

173. Whereas Question (a) also covers the obligations of States that have not caused significant harm to the climate system and other parts of the environment, Question (b) is devoted to the legal consequences for the States who have failed to abide by their obligations. Nevertheless, the legal consequences for the latter group might be extended by analogy to the former group, *mutatis mutandis*.

i. The Conduct Constitutes, in Principle, a Breach of International Law

174. The Conduct is inconsistent with the States' obligations as articulated above.

175. For a breach to be established, it is not necessary for the non-conformity of Conduct with the relevant obligation to be total. As the ILC explains, a breach may result both from total or partial non-conformity, whether as a result of acts or omissions of the State or a combination thereof. [178]

176. The Conduct has unfolded over time, beginning in an era when the consequences of GHG emissions were not fully recognized. Moreover, it might be argued that certain legal obligations were not always clear or even applicable during those early days of the Industrial Revolution. But this inter-temporal question has only limited relevance to Question (b). This is because Question (b) distinguishes between the 'actus reus' – the States' acts and omissions which have caused significant harm to the climate system and other parts of the environment – and the consequences of their legal obligations today. Arguably, there can be legal consequences for States' obligations today for past acts and omissions even during an earlier era when the Conduct was not unlawful. For example, a State that has benefited economically from past appropriation of a large and inequitable share of the carbon budget might be subject *now* to stronger mitigation obligations with respect to the future uses of the current carbon budget, than States that have not taken a large share of the carbon budget.

177. This conclusion is strengthened by the nature of the obligations in question. The Conduct is subjected to obligations that are owed *erga omnes* and, in the case of Kiribati and other vulnerable States, to peremptory norms of international law, including the obligations

178 International Law Commission, *supra* note 145, as corrected, Article 12, commentary, ¶ 2.

arising from the right to self-determination.[179] As recognized in Article 41 of ARSIWA, "States **shall** cooperate to bring to an end through lawful means any serious breach within the meaning of article 40."[180]

ii. The legal Consequences of the Breaches

178. The clarification of the legal consequences arising from the Conduct is requested "with respect to" two categories of victims of such conduct. The first category of victims is of "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".

179. The Republic of Kiribati is among those States, as can be concluded from the description of its situation in Part III above. This makes Kiribati an "injured State" in the sense of Article 24 ARSIWA.[181] As Kiribati's right to self-determination is at risk, the obligations of other States are both owed to Kiribati individually, and at the same time owed to "a group of States including that State, or the international community as a whole," as the breach of the obligation specially affects Kiribati.

Cessation

180. The legal consequences of the Conduct under general international law require the cessation of the Conduct, when a State or group thereof is still displaying it.[182] and reparation, by all States having displayed the Conduct.

Reparations

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179 East Timor (Portugal v. Australia), Judgment, I.C.J. Rep. 1995, p. 90, ¶ 29 (June 30); International Law Commission, *supra* note 145, Vol. II, as corrected, Article 40, commentary, ¶ 5 ("[t]he principle of self-determination ... is one of the essential principles of contemporary international law", which gives rise to an obligation to the international community as a whole to permit and respect its exercise.").

180 International Law Commission, *supra* note 145, with commentaries, 2 Y.B. INT'L L. COMM'N 113, art. 40(1), U.N. DOC. A/RES/56/83.

181 Art. 42 of Articles on the Responsibility of States for Internationally Wrongful Acts (ARSIWA): "A State is entitled as an injured State to invoke the responsibility of another State if the obligation breached is owed to: (a) that State individually; or (b) a group of States including that State, or the international community as a whole, and the breach of the obligation: (i) specially affects that State; or (ii) is of such a character as radically to change the position of all the other States to which the obligation is owed with respect to the further performance of the obligation."

182 Jurisdictional Immunities of the State (Germany v. Italy: Greece intervening), Judgment, I.C.J. Rep. 2012, p. 153, ¶137 (Feb. 3) ("… the State responsible for an internationally wrongful act is under an obligation to cease that act, if it is continuing."), this is also by reference to Article 30(a) of ARSIWA. The same conclusion was reached, by reference to Articles 30 and 31 of ARSIWA, by the Grand Chamber of the European Court of Human Rights in Case of Georgia v. Russia (I), ECtHR (Grand Chamber) Application No. 13255/07, Judgment (Jan. 31, 2019), ¶ 54.

181. In its judgment on compensation in the *Costa Rica v. Nicaragua* case, the Court confirmed that the principle that "the breach of an engagement involves an obligation to make reparation in an adequate form"[183] extends to the determination of legal consequences in cases of environmental harms.[184] The obligation to make reparations is therefore applicable to the Conduct as defined above.

Types of Reparations: Restitution and Compensation

182. According to the rules on State responsibility, the obligation placed on the responsible State is to make "full reparation," namely to "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."[185] According to ARSIWA Article 31(2), "Injury includes any damage, whether material or moral, caused by the internationally wrongful act of a State."[186]

183. Restitution and compensation for an illegal act require the identification of the moment when the Conduct was regarded as illegal and hence States have "knowingly"[187] breached their obligations to others.

184. On this point of timing, the Republic of Kiribati invites the Court to accept that States' "knowledge" of the adverse effects of GHG emissions including limits of the collective carbon budget can be traced well into the past and at least as far back as the 1960s when the United Nation's Economic and Social Council resolved, at its forty-fourth session (1968) to include on its agenda an item entitled "Question of Convening an International Conference on Problems of the Human Environment."[188] In preparations for the session,

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183 Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua), Compensation, Judgment, I.C.J. Reports 2018, p. 25-26, ¶ 29, (quoting the judgment of the Permanent Court of International Justice in Factory at Chorzów, Jurisdiction, Judgment No. 8, 1927, P.C.I.J. (ser. A) No. 9, at 21 (July 26)).

184 Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua), Compensation, Judgment, I.C.J. Reports 2018, p. 25-26, ¶ 34 (Feb. 2); Gabčikovo-Nagymaros Project, *supra* note 107, p. 80, ¶ 150*;* Pulp Mills, *supra* note 100, p. 103, ¶ 273.

185 Factory at Chorzów, *supra* note 182, p. 47.

186 ARSIWA, Article 31(2).

187 Corfu Channel Case, *supra* note 98, ¶ 2 ("… every State's obligation not to allow *knowingly* its territory to be used for acts contrary to the rights of other States") (emphasis added).

188 *See* U.N. Economic and Social Council, Question of convening an international conference on the problems of human environment (1968) U.N. DOC. E_RES_1346(XLV)-EN.pdf *available at* https://digitallibrary.un.org/record/214491?ln=en.

the UN Secretary General Report[189] reviews the activities and findings *inter alia* of the World Meteorology Organization, which, under the heading of "Protecting the atmospheric environment." indicated that

> "*Application* of meteorology to the protection of the atmosphere is mainly related to the problem of increasing air-pollution. There are large-scale air pollution problems where we are interested in global spread of debris from nuclear tests, the increase of acidity due to increased industrialization over a large part of the globe **or the increase of the carbon-dioxide in the earth's atmosphere which may change our climate**."[190] (emphasis added)

185. The same period is also the moment when the right to self-determination had been crystallized as a fundamental obligation under international law.[191]

186. Therefore, restitution and compensation are due to the injured States, including Kiribati, from those States that have continued to emit GHG emissions since the 1960s.

187. In this context the Court is invited to consider the immense adverse consequences of the Conduct as described in Part B of this submission, which include sea-level rise which leads to the submergence of land, increased flooding and storm surges, and the warming of seas that has a lethal impact on coral reefs, which in turn impacts the fisheries and tourism and thus impairs the exercise of permanent sovereignty over these natural resources, as well as the stronger tropical cyclones and the destruction of freshwater resources and cultivable land which deprive the people in Kiribati and in other low-lying island States of their own means of subsistence, of safe access to drinking water, sanitation and food security.

Types of Reparations: Mitigation

188. In the context of Kiribati and other low-lying developing islands, the fulfilment of the requirements of restitution and compensation, in a way that would "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,"[192] will necessitate support

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189 U.N. Secretary-General, *Activities of United Nations Organizations and programmes relevant to the human environment*, ¶¶ 71–83, U.N. DOC. E/4553 (July 11, 1968), *available at* https://digitallibrary.un.org/record/729430

190 *Id*. at ¶ 78.

191 2019 I.C.J. 97, *supra* note 4, ¶ 148.

192 Factory at Chorzów, *supra* note 182, at 47.

for mitigation and adaptation measures, effective redress for the human toll caused by the Conduct, the ongoing acknowledgment of the sovereignty, statehood, territorial integrity, and maritime boundaries of small island developing States.

189. The obligation of mitigation covers also States' obligations that result from prospective Conduct which amount to unequitable or unreasonable consumption of the remaining carbon budget, or who otherwise do not promote the low-lying island states' right to self-determination.

190. As part of mitigation measures, all States must continue to recognize the sovereignty, statehood, territory and maritime spaces of Kiribati and other small island developing States. The continued statehood of those island States is incumbent upon all States under Article 41(2) ARSIWA, which stipulates that "[n]o State shall recognize as lawful a situation created by a serious breach within the meaning of article 40."[193] To the extent that sea-level rise will adversely affect the Republic of Kiribati's territorial integrity of its ability to exercise its self-determination including by benefiting from its natural resources, inland or maritime, the recognition of such effects as legally valid will be a demand to recognize an unlawful situation contrary to Article 41(2) ARSIWA.

191. The obligation to continue to recognize Kiribati's full extent of boundaries and maritime resources is not only a measure of mitigation. It is also a free-standing right that derives from the principle of sanctity and stability of boundaries. As this Court recalled in 1978, the key element of stability and permanence of frontiers and boundaries in international law pertains also in the context of the law of the sea:

> "Whether it is a land frontier or a boundary line in the continental shelf that is in *question*, the process is essentially the same, and inevitably involves the same element of stability and permanence, and is subject to the rule excluding boundary agreements from fundamental change of circumstances.[194]

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193 Article 41(2) ARSIWA.

194 Aegean Sea Continental Shelf, Judgment, I.C.J. Rep. 1978, p. 3, ¶ 85 (Dec. 19); *see also* Rolf Einar Fife, *Sea-Level Rise in Relation to International Law: How to Protect Coastal State Rights by Operationalizing Legal Analysis*, *in* THE INTERNATIONAL LEGAL ORDER IN THE XXIST CENTURY: ESSAYS IN HONOUR OF PROFESSOR MARCELO GUSTAVO KOHEN, 180 (Jorge E. Viñuales, Andrew Clapham, Laurence Boisson de Chazournes, and Mamadou Hébié, eds., 2023); Alfred H.A. Soons, *The effects of sea level rise on maritime limits and boundaries*, NETHERLANDS INTERNATIONAL LAW REVIEW 37 (1990), at 217; David D. Caron, *When Law makes Climate Change Worse: Rethinking the Law of Baselines in Light of a Rising Sea-level*, ECOLOGY LAW QUARTERLY 17 (1990), at 635.

192. In the context of Kiribati's and other low-lying developing coastal States' dependence on the migrating tuna stocks, effective restitution and compensation require ensuring Kiribati's and similarly situated States' continued exclusive management of the stocks that have thus far been within Kiribati's and other similarly situated States' Exclusive Economic Zone. In light of other States' obligation to protect Kiribati's sovereignty and self-determination, they must desist from claiming access to such stocks and recognize Kiribati's exclusive control over those stocks. To the extent that such tuna stocks are to be seen as "stocks occurring both within the exclusive economic zone and in an area beyond and adjacent to it" in the sense of Article 63(2) UNCLOS, the States other than Kiribati fishing for such stocks in the adjacent area shall be required, as part of the reparations they owe to Kiribati, or alternatively, as part of their on-going obligation to promote Kiribati's self-determination, to accept Kiribati's exclusive authority to determine the measures necessary for the conservation of these stocks in the adjacent area.[195]

193. Moreover, the obligation to mitigate the consequences of the Conduct by continued recognition of Kiribati's and other similarly situated low-lying developing coastal States's territorial integrity and its right to self-determination is derived from the internationally recognized human right to peoples' self-determination as enshrined in the ICCPR. As the Human Rights Committee stated in its General Comment No. 26 (1977),

> "The rights enshrined in the Covenant belong to the people living in the territory of the State party. The Human Rights Committee has consistently taken the view, as evidenced by its long-standing practice, that once the people are accorded the protection of the rights under the Covenant, such protection devolves with territory and continues to belong to them, notwithstanding change in government of the State party, including dismemberment in more than one State or State succession or any subsequent action of the State party designed to divest them of the rights guaranteed by the Covenant."[196]

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[195] Article 63(2) UNCLOS: "Where the same stock or stocks of associated species occur both within the exclusive economic zone and in an area beyond and adjacent to the zone, the coastal State and the States fishing for such stocks in the adjacent area shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in the adjacent area."

[196] CCPR, *General Comment No. 26: Continuity of Obligations Adopted at the Sixty-first Session of the Human Rights Committee*, on 8 December 1997 U.N. DOC. CCPR/C/21/Rev.1/Add.8/Rev.1 (Contained in Document A/53/40, annex VII), Art. 4; Concluding Observations of the Human Rights Committee, Serbia, U.N. DOC. CCPR/C/UNK/CO/1 (2006), Art. 4.

194. As the Kiribati people's right to self-determination is inalienable, even a physical disappearance of their land cannot amount to a legal disappearance of their right, collectively and individually. As a collective and as individuals, the Kiribati people will forever retain their "right to have rights"[197] secured by international law; this law forever ensures that they never become stateless.

195. The Kiribati people will continue to remain entitled to exercise their right to self-determination in their entire territory even if forced to temporary relocate due to climate events. This right is derived from their human right to their ancestral lands which is an essential element in their identity. As the Human Rights Committee stated in its General Comment No. 26 (1977),

> "The rights enshrined in the Covenant belong to the people living in the territory of the State party. The Human Rights Committee has consistently taken the view, as evidenced by its long-standing practice, that once the people are accorded the protection of the rights under the Covenant, such protection devolves with territory and continues to belong to them, notwithstanding change in government of the State party, including dismemberment in more than one State or State succession or any subsequent action of the State party designed to divest them of the rights guaranteed by the Covenant."[198]

Types of Reparations: The Loss and Damage Fund

196. The creation of the Loss and Damage Fund by Parties to the UNFCCC reflects a consensus among States of the international obligation of States to provide reparations to the affected States by way of restitution, compensation and mitigation.[199] Such Fund must provide affected and vulnerable States adequate climate finance, technology transfer and capacity-building to enable them to adapt to the adverse effects caused by the Conduct.

The Legal Consequences of the Breach of Peremptory Norms

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197 *See* Hannah Arendt, THE ORIGINS OF TOTALITARIANISM (Harcourt Brace & Company, 1951).

198 CCPR, General Comment No. 26 and Concluding Observations of Human Rights Committee, *supra* note 195.

199 UNFCCC, Conference of the Parties, Decision 2/CP.27, *Funding arrangements for responding to loss and damage associated with the adverse effects of climate change, including a focus on addressing loss and damage*, Report of the Conference of the Parties on its twenty-seventh session, held in Sharm el-Sheikh from 6 to 20 November 2022, FCCC/CP/2022/10/Add.1 (Mar. 17, 2023).

197. The legal consequences of the violation of the right to self-determination are covered by Article 41(1)-(2) of ARSIWA. They are widely regarded as reflecting customary international law.

198. These consequences include the obligation "to bring to an end through lawful means any serious breach" and the obligation not to "recognize as lawful a situation created by a serious breach." This implies a duty not to recognize any modification of the territory or the maritime zones of small developing island States at the time of their joining UNCLOS, and the rights and entitlements that flow from them, notwithstanding climate change-related changes. Additionally, all States must recognize the continued sovereignty of small island States, and their continuing sovereign rights in historical maritime resources despite the effects of climate change.

199. The positive obligation "to bring to an end through lawful means any serious breach" of the small developing island States' maritime rights requires the recognition of those States' sovereign rights in their traditional EEZ, including the fisheries. Fisheries migrating as a result from climate change must therefore continue to be subjected to those island States' sovereignty rights.

iii. Legal Consequences with Respect to "Peoples and Individuals of the Present and Future Generations Affected by the Adverse Effects of Climate Change"

200. As described earlier, individuals, and indigenous peoples and minorities living Kiribati like those in other low-lying small developing States, are extremely vulnerable to the continued Conduct of other States. These individuals and groups are protected by general international law and specifically by international human rights law. Future generations are also affected and are equally protected by this law.

201. International human rights instruments have their own specific set of legal consequences for the breach of primary obligations. Those include the obligation to end and avoid recurrence of the violation,[200] the obligation to provide an effective remedy for the human

[200] UNHRC, *General Comment No. 31: The nature of the general legal obligation imposed on States Parties to the Covenant*, 80th Sess., adopted 26 May 2004, CCPR/C/21/Rev.1/Add.13, ¶ 15.

rights violation,[201] the obligation to give access to courts to obtain remedies,[202] the obligation to provide structural remedies.[203]

202. In its View in the case of *Billy v. Australia*,[204] the Human Rights Committee found violations of Articles 17 (the right to family life) and 27 (the right to minority culture) of the ICCPR as resulting from the effects of climate change on indigenous peoples in low-lying islands. Elaborating on the legal consequences, the Committee stated that:

> "[p]ursuant to article 2(3)(a) of the Covenant, the State party is under an obligation to provide the authors with an effective remedy. This requires it to make full reparation to individuals whose Covenant rights have been violated. Accordingly, the State party is obligated, inter alia, to provide adequate compensation, to the authors for the harm that they have suffered; engage in meaningful consultations with the authors' communities in order to conduct needs assessments; continue its implementation of measures necessary to secure the communities' continued safe existence on their respective islands; and monitor and review the effectiveness of the measures implemented and resolve any deficiencies as soon as practicable. The State party is also under an obligation to take steps to prevent similar violations in the future."[205]

203. While these consequences address a State vis-à-vis its own citizens situated within its jurisdiction, similar consequences apply *mutatis mutandis* to citizens of other affected States, such as the people of Kiribati, whose human rights, including the rights under Articles 17 and 27 of the ICCPR have been severely affected by the Conduct of many States.

204. Of particular importance in this context is obligation to implement measures necessary to secure the Kiribati people's and other affected communities' continued safe existence on their respective islands, including their ability to preserve their culture and their traditional knowledge.

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201 *See* Dinah Shelton, 'Human Rights, Remedies', in *Max Planck Encyclopedia of Public International Law*, ed. Rüdiger Wolfrum, in MPEPIL, at paras. 1 – 3, *available at* http://opil.ouplaw.com.ezproxy.is.ed.ac.uk/view/10.1093/law:epil/9780199231690/law-9780199231690-e1738?rskey=QnwVH0&result=2&prd=EPIL (accessed Mar. 11, 2024).

202 Francioni, Francesco (ed.), *Access to Justice as a Human Right*, Collected Courses of the Academy of European Law, (Oxford, 2007; online edn, Oxford Academic, 22 Mar. 2012), *available at* https://doi.org/10.1093/acprof:oso/9780199233083.001.0001, accessed 6 Mar. 2024.

203 UNHRC, *General Comment No. 31: The nature of the general legal obligation imposed on States Parties to the Covenant*, 80th Sess., adopted 26 May 2004, CCPR/C/21/Rev.1/Add.13, ¶ 17.

204 Billy v. Australia, *supra* note 164.

205 Billy v. Australia, *supra* note 164, ¶¶ 10 – 11.

205. The legal consequences under both general international law and international human rights law include the obligation to mitigate the consequences of the States' Conduct by securing and ensuring the capacity of the Kiribati people to maintain their livelihoods on their islands, and to benefit from food safety and water safety, to them and to their future generations.

V. CONCLUSION

206. On the basis of the foregoing considerations, the Republic of Kiribati respectfully submits that for the reasons set out in this Written Statement, the following elements should be part of the answers of the Court to the questions raised by the General Assembly in its request for an Advisory Opinion contained in Resolution 77/276:

(1) The Court has jurisdiction to give the Advisory Opinion requested, and there are no grounds for declining to exercise such jurisdiction;

(2) The relevant conduct of States for the purpose of this Advisory Opinion consists of:

(a) Acts or omissions of States over time that resulted in emission of anthropogenic GHG from activities within their jurisdiction which have caused significant harm to the climate system and other parts of the environment, as established by a scientific consensus which has been politically endorsed;

(b) There is sufficient evidence to identify the share of States or groups of States in causing climate harms by the GHG emissions of specific States and groups of States;

(c) The contributions to the climate crisis are profoundly unequal. For low-lying small island States, the relevant conduct has resulted in sea-level rise which leads to the submergence of land, increased flooding and storm surges, as well as strong tropical cyclones and the warming of seas that have a lethal impact on coral reefs, which in turn impact the fisheries and tourism, destroys freshwater resources and cultivable land, which in turn deprive the people in Kiribati and in other low-lying island States of their means of subsistence, of safe access to drinking water, sanitation and food security, and impair the ability to exercise control over parts of the islands and natural resources;

(d) States whose acts and omissions resulted in massive GHG emissions and thereby caused significant harm to the climate system and other parts of the environment knew or should have known the implications of their conduct at least from the 1960s onwards. This is also the time period when the bulk of GHG emissions were released; and

(e) The relevant conduct encompasses also the failure of States to take measures within their power to mitigate the consequences of such harms in their

jurisdiction and beyond, regardless of their past contributions to the crisis. This is due to the fact that the relevant conduct also extends to current and future conduct necessary to prevent or mitigate further harms, including the ongoing management of the remaining global carbon budget.

(3) The relevant conduct's effects on Kiribati and other low-lying small developing States entails the violation of several legal obligations incumbent upon States:

(a) The obligation not to cause significant harm to other States or to common resources. which include the atmosphere and the marine environment, and the global carbon budget;

(b) The obligation not to use more than an equitable and reasonable share of common resources;

(c) The obligation to respect and promote the equal rights of other states and their right to continue exercising their right to self-determination; particularly the obligation toward those States that are specifically affected by the relevant conduct, and particularly toward low-lying small island States whose territorial integrity is endangered as a result of that conduct, and toward peoples whose exercise of their right to self-determination and to control their natural resources is jeopardized as a result of that conduct;

(d) The obligation to positively promote the self-determination of the people of Kiribati and of other low-lying small island States, in line with the obligation of due diligence and the principle of common but differentiated responsibilities;

(e) The obligation, regardless of States' past conduct, to act positively to mitigate the harsh consequences of any such conduct, at least by recognizing the existing rights of States whose control of certain parts of their land territory or other natural resources is precluded as a consequence of the conduct;

(f) The obligation incumbent on all States to accept that the integrity of all States is inviolable and their entitlement to self-determination is inalienable;

(g) The obligation to respect and protect the international human rights of individuals outside States' jurisdiction when they exercise jurisdiction within their national territory and that exercise of jurisdiction causes human rights violations to persons residing abroad; and

(h) More specifically, the obligation to respect and protect the rights to life, to family and community life, and to self-determination, of individuals affected by the Conduct.

(4) The legal consequences of the breaches of those legal obligations include:

(a) The immediate the cessation of the conduct, when a State or group thereof is still displaying it, and reparation, by all States that have taken part in that conduct;

(b) In the context of Kiribati and other low-lying developing island States, the fulfilment of the requirements of restitution and compensation will necessitate support for mitigation and adaptation measures, effective redress for the human toll caused by the relevant conduct, and the continued recognition of the sovereignty, statehood, territory and maritime spaces of low-lying small island developing States;

(c) The obligation of mitigation covers also States' obligations that result from prospective conduct which amount to unequitable or unreasonable consumption of the remaining carbon budget, or who otherwise do not promote the low-lying developing island States' right to self-determination;

(d) As part of mitigation measures, all States must continue to recognize the sovereignty, statehood, territory and maritime spaces of the Republic of Kiribati and other small island developing States.

(e) In the context of Kiribati's and other low-lying developing coastal States' dependence on the migrating tuna stocks, effective restitution and compensation require ensuring Kiribati's and similarly situated States' continued exclusive management of the stocks that have thus far been within their Exclusive Economic Zones. In light of other States' obligation to protect Kiribati's sovereignty and self-determination, they must desist from claiming access to such stocks and recognized those island States' exclusive control over those stocks;

(f) The obligation to mitigate the consequences of the wrongful conduct by continued recognition of Kiribati's and other similarly situated low-lying developing coastal States' territorial integrity and their right to self-determination is derived from the internationally recognized human right to peoples' self-determination as enshrined in the ICCPR;

(g) The creation of the Loss and Damage Fund by Parties to the UNFCCC reflects a consensus among States of the international obligation of States to provide reparations to the affected States by way of restitution, compensation and mitigation. Such Fund must provide affected and vulnerable States adequate climate finance, technology transfer and capacity-building to enable them to adapt to the adverse effects caused by the wrongful conduct; and

(h) The obligation to mitigate the consequences of the States' wrongful conduct entails securing and ensuring the peoples of low-lying coastal developing States' and peoples' continued safe existence on their respective islands, their capacity to maintain their livelihoods on their islands, to preserve their culture and their traditional knowledge, to them and to their future generations.

22nd March 2024

Hon. Teburoro Tito

Kiribati Ambassador to the United Nations

LIST OF ANNEXES

Annex 1: Expert Report for Kiribati from the Pacific Community (SPC).

Annex 2: Statements

1. Mr. Kaon Tiamere, Director of Oceanic Fisheries Division, Ministry of Fisheries and Marine Resources Development
2. Mr. Brian Ritang, Betio Community, Betio Villlage
3. Mr.Timereta Eria, Tebikenikoora Community, Eita Village
4. Mrs. Kinaai Kairo, Director of Agriculture, Ministry of Environment, Lands and Agricultural Development
5. Ms. Kautunnata Kobia, Nurse Aid at Tebunginako Village, Abaiang Island
6. Ms. Bubunrenga Ieu, Youth rep of Tebunginako Village, Abaiang Island
7. Mr. Katimero Nawere, Elder of Te Nei Community, Temwaiku Village
8. Mr. Joseph Charles, Youth rep of Te Nei Community, Temwaiku Village
9. Dr. Alfred Tonganbeia, Officer in Charge of Public Health, Ministry of Health, and Medical Services
10. Mr. Ueneta Toorua, Director of Kiribati Meteorological Service
11. Mrs. Ruita Teiabauri, Office in Charge for Kiribati Lands Division, Ministry of Environment, Lands and Agricultural Development
12. Mr. Kiaitonga Burera, Tebunginako Village, Abaiang Island
13. Mr. Choi Yeeting, Director of Climate Change & Disaster Risk Management-Office of Te Beretitenti

Annexures

Pacific Community
Communauté du Pacifique

INTERNATIONAL COURT OF JUSTICE

Request for an Advisory Opinion on Obligations of States in respect of Climate Change

Expert Report for the Government of Kiribati
prepared by the Pacific Community (SPC)

Authorised by the Director-General of the Pacific Community,
Dr Stuart Minchin

Compiled and authored by Johanna Gusman, M.Sc., J.D.

12 March 2024

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INTRODUCTION AND EXPERTISE

1. The Pacific Community (SPC) supports Pacific Island countries and territories with scientific and technical solutions to address the region's greatest challenge, climate change. SPC is one of the Pacific region's scientific and technical intergovernmental organisations working alongside its Pacific Island country and territory (PICT) Members[1] to understand and develop effective solutions to the challenges they face. In this case, SPC's core technical abilities to provide the objective science behind observed impacts of the adverse effects of climate change experienced by Kiribati will help provide further substantiation of its state submission.

2. SPC's mandate and work programme addresses the many facets of climate change and its impacts on the region, including but not limited to marine ecosystems, fisheries,[2] coastal hazards, and human rights protections.[3] Additionally, SPC is the regional lead for the implementation of many climate change mitigation and adaptation programmes, including on sea level rise as well as loss and damage, and it sustainably manages Pacific maritime zones, ecosystems, and resources from 'ridge to reef' for current and future generations.[4] Its expertise in global and regional analyses of the impacts of climate change on the marine environment led to its inclusion in the advisory opinion proceedings at the International Tribunal for the Law of the Sea in Case No. 31.[5]

3. Finally, SPC is a consultative and advisory body to participating governments and administrations in matters affecting the economic and social development of its members within its scope, and the welfare and advancement of their peoples.[6] SPC sustainably manages social and environmental

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[1] The Pacific Community (SPC) has 27 members, including 22 PICTs: American Samoa, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Pitcairn Islands, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Wallis and Futuna.

[2] Note that, under the United Nations Convention on the Law of the Sea (UNCLOS), fishing is singled out among the legitimate uses of the sea that are negatively affected by pollution ('pollution of the marine environment means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in 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'*)*, UNCLOS, 10 December 1982, 1833 United Nations Treaties Series (U.N.T.S.) 397 (entered into force 1 November 1994) at Article 1(1)(4).

[3] Article IV, §§ 6-10, of the Canberra Agreement establishing the South Pacific Commission (U.N.T.S., vol. 97, 227).

[4] For the full range of SPC's implementation for mitigation and adaptation programming, *see* Pacific Community Strategic Plan 2022–2031 (available at: https://purl.org/spc/digilib/doc/uzzya).

[5] *See* Request for an Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law (Request for an Advisory Opinion submitted to the Tribunal), Intergovernmental Organizations invited to submit written statements pursuant to the Rules of the Tribunal.

[6] Article IV, §§ 6-10, of the Canberra Agreement establishing the South Pacific Commission (U.N.T.S., vol. 97, p. 227) at para. 6.

risks and impacts of all its activities in an inclusive manner, with a people-centred approach to maximise whole-of-society benefits. SPC is committed to openness and transparency, maintaining the highest ethical standards, and as such, the statements contained in this report are factually correct and materially complete.

METHODOLOGY

4. Kiribati requested this expert report to include the full scope of climate-related losses and damages experienced, including environmental, human health, socio-economic, and cultural impacts. From this request, several of SPC's largest and most relevant divisions provided the necessary science to put together this report, compiled by an international lawyer with a scientific background to ensure proper competencies.[7]

5. The science captured in this expert report is based on and built upon the best available science, including the Sixth Assessment Report of the United Nations Intergovernmental Panel on Climate Change (IPCC).[8] It covers climate impacts that have already been observed as well as those currently occurring, like temperature rise, wave inundation, flooding, marine environment degradation, and others.

6. It concludes that (i) reef islands (atolls) like Kiribati are highly vulnerable to the impacts of anthropogenic climate change; (ii) Kiribati has experienced significant harm as a result of anthropogenic climate change; and (iii) future losses and damages are bound to occur, with the extent of future harm depending on actions taken to avert, minimise, and address such losses and damages.

CLIMATE CHANGE–RELATED IMPACTS

7. Small island developing states, due to their geographical circumstances and level of development, are specially affected and particularly vulnerable to the adverse effects of climate change. For Kiribati, these well-documented harms include, but are not limited to, sea-level rise; coastal erosion; ocean warming, acidification, and deoxygenation; and adverse effects on pelagic and coastal fisheries; coral reefs and biodiversity; temperature rise; drought and water security; agriculture; and

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[7] SPC's relevant divisions include Geoscience, Energy and Maritime (GEM), Fisheries, Aquaculture and Marine Ecosystems (FAME), Land Resources Division (LRD), Human Rights and Social Development (HRSD) and Climate Change and Environmental Sustainability (CCES). The profiles of these divisional directors as well as the author's curriculum vitae for this expert compilation can be found packaged at the end of this report.
[8] Intergovernmental Panel on Climate Change (IPCC), *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 (also available at: https://report.ipcc.ch/ar6/wg2/IPCC_AR6_WGII_FullReport.pdf).

food security.[9] These impacts are described under the progression of time and corresponding increased temperature projections, and where possible, including climate impacts likely to occur at 2.8°C, the level of warming projected to occur if nationally determined contributions (NDCs) submitted under the Paris Agreement are fully implemented.[10]

Sea-level rise

8. Climate change–induced sea level rise is an existential threat to Kiribati. This low-lying country, composed of 33 atolls and reef islands, stands on average just two metres above sea level, rendering it particularly vulnerable to rises in sea level. Rising sea levels have caused increased coastal erosion and saltwater intrusion into the freshwater lens.

9. The highest sea levels in Kiribati typically occur between January and March and in August/September with El Niño years typically having higher levels. Sea-level rise in the Kiribati exclusive economic zone (EEZ), as measured by satellite altimeters from 1993 to mid-2020, ranges from about 3–4 mm per year in the vicinity of the Gilbert and Phoenix Islands, and up to 4.5 mm per year in the vicinity of the Line Islands.[11] Kiribati experiences a semidiurnal tidal cycle, meaning two high and two low tides per day. The highest predicted tides of the year at Tarawa typically occur in August/September as well as December to February. For Kiritimati, the highest predicted tides are around August, and also from November to January. Since approximately 2009, the number of hours that exceed the 99th percentile threshold has been increasing. This is due to a combination of sea-level rise and subsidence occurring in Kiribati.[12]

10. Sea level across the three Kiribati island groups, measured by satellite altimeters (see Figure 1) since 1993, has risen between three and four millimetres (mm) per year. This rise is partly linked to a pattern related to climate variability from year to year and decade to decade. For Tarawa, the sea level trend is reported at 4.4 mm per year, slightly higher than the altimetry trends for the rest of Kiribati and this difference is likely attributed to subsidence occurring at Tarawa.[13]

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[9] *See mainly*, McGree, S., Smith, G., Chandler, E., Herold, N., Begg, Z., Kuleshov, Y., Malsale, P., and Rittman, M. SPC. *Climate Change in the Pacific 2022: Historical and recent variability, extremes and change.* Chapter 5 'Kiribati'; Gillett, R. and Fong, M. 2023. Fisheries in the economies of Pacific Island countries and territories (Benefish Study 4). Chapter 9: 'Kiribati', Noumea, New Caledonia: Pacific Community. SPC also received further data from experts at the Secretariat of the Pacific Regional Environment Programme (SPREP) in consultation with the Kiribati government.

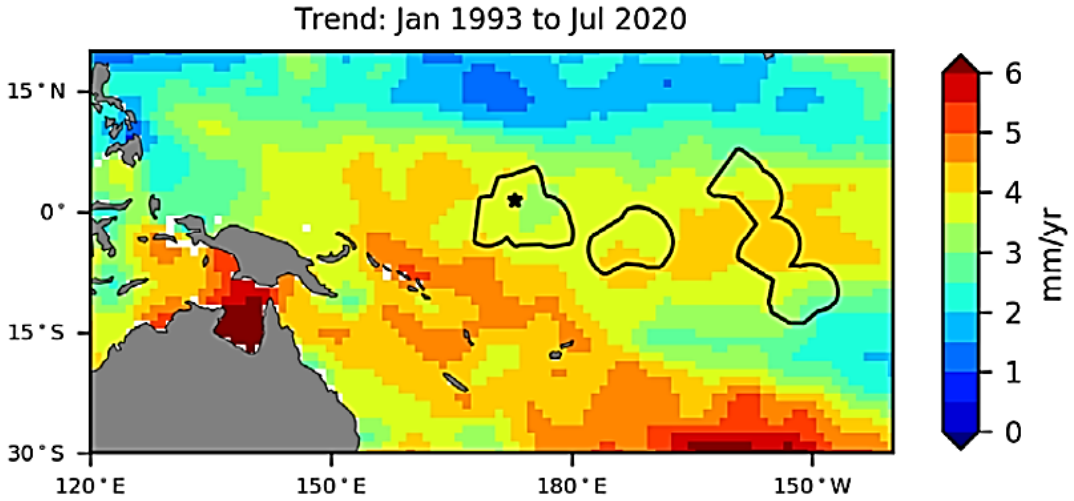
[10] Additional information on historical climate trends for Kiribati can be found in the Pacific Climate Change Data Portal available at http://www.bom.gov.au/climate/pccsp.

[11] McGree, S. et al., *Climate Change in the Pacific 2022*, 60.

[12] Brown, N. J., Lal, A., Thomas, B., McClusky, S., Dawson, J., Hu, G., and Jia, M. 2020. Vertical motion of Pacific Island tide gauges: combined analysis from GNSS and levelling. Record 2020/03. Geoscience Australia, Canberra. http://dx.doi.org/10.11636/Record.2020.003.

[13] *Ibid*.

Figure 1. Satellite altimetry annual trend for the Pacific from 1993 to 2020 with Kiribati EEZ highlighted in black.[14]



11. By the end of the century, sea level is likely to increase by 0.73 cm under intermediate climate change scenarios (SSP 2–4.5) in Kiribati (see Table 1)—a scenario where temperatures rise by 2.7°C in the 'shared socioeconomic pathway' (SSP). To understand the impacts of climate change better, there is an urgent need to invest in baseline data and strengthen monitoring efforts for informed decision-making on adaptation and mitigation as harm is already being observed in Kiribati.

Table 1. Decadal increments for projections of sea level rise in metres for Kiribati relative to the 1995–2014 mean sea level.[15]

Year	*Low* SSP1–2.6	*Intermediate* SSP2–4.5	*High* SSP3–7.0	*Very High* SSP5–8.5	*Very High – Low* SSP5–8.5 H+
1995–2014	0.00	0.00	0.00	0.00	0.00
2020	0.07 (0.05–0.10)	0.07 (0.05–0.09)	0.07 (0.05–0.09)	0.08 (0.06–0.10)	0.08 (0.06–0.11)
2030	0.13 (0.10–0.17)	0.13 (0.10–0.16)	0.13 (0.10–0.16)	0.14 (0.11–0.18)	0.14 (0.11–0.21)
2040	0.19 (0.14–0.24)	0.19 (0.15–0.25)	0.20 (0.15–0.26)	0.21 (0.16–0.27)	0.21 (0.16–0.34)
2050	0.26 (0.20–0.34)	0.28 (0.22–0.36)	0.29 (0.23–0.37)	0.30 (0.24–0.39)	0.31 (0.24–0.50)
2060	0.32 (0.25–0.42)	0.35 (0.28–0.46)	0.37 (0.29–0.48)	0.39 (0.32–0.51)	0.42 (0.31–0.71)
2070	0.40 (0.31–0.53)	0.44 (0.35–0.58)	0.47 (0.37–0.61)	0.51 (0.41–0.67)	0.55 (0.41–0.97)
2080	0.47 (0.36–0.64)	0.54 (0.42–0.71)	0.58 (0.46–0.77)	0.64 (0.50–0.84)	0.70 (0.50–1.27)
2090	0.54 (0.41–0.74)	0.63 (0.49–0.85)	0.71 (0.56–0.94)	0.79 (0.62–1.04)	0.88 (0.62–1.61)
2100	0.62 (0.43–0.86)	0.73 (0.56–1.00)	0.85 (0.64–1.14)	0.93 (0.69–1.28)	1.08 (0.69–1.96)
2110	0.71 (0.47–1.00)	0.83 (0.61–1.15)	0.95 (0.66–1.31)	1.05 (0.71–1.49)	1.28 (0.71–2.32)
2120	0.78 (0.51–1.11)	0.93 (0.67–1.30)	1.08 (0.75–1.50)	1.19 (0.82–1.71)	1.52 (0.82–2.65)
2130	0.85 (0.55–1.23)	1.02 (0.74–1.44)	1.21 (0.83–1.69)	1.33 (0.91–1.92)	1.78 (0.91–3.46)
2140	0.92 (0.58–1.33)	1.12 (0.80–1.58)	1.34 (0.92–1.87)	1.47 (1.00–2.12)	2.07 (1.00–4.58)
2150	0.98 (0.62–1.44)	1.21 (0.86–1.71)	1.46 (1.00–2.06)	1.59 (1.08–2.32)	2.39 (1.08–5.82)

[14] Figure from McGree, S. et al., *Climate Change in the Pacific 2022.* Chapter 5.8.2 'Trends' at 69. The star symbol indicates the location of the tide gauge at Tarawa.
[15] Graphic taken from PRIF: *Guidance for managing Sea Level Rise Infrastructure Risk in Pacific Island Countries*, Published: December 2021. Projections based on IPCC (2021) sourced from AR6 and interpolated to nearest decade and adjusted for the upper bound of the most likely vertical land movement defined by Fox-Kemper et al. (2021).

Shoreline change, coastal inundation (waves), and flooding

12. Studies have shown shoreline changes of reef islands in historical areas around the Tarawa atoll in Kiribati. Low-lying reef islands on atolls are threatened by the observed and anticipated effects of sea-level rise.[16] In the short term, the reef-island area and shoreline change over 30 years shows a substantial increase in size (driven largely by reclamations in urban South Tarawa), yet widespread erosion and high average accretion rates[17] are also observed that appear to be related to reclamations.

13. In rural North Tarawa, most reef islands show stability with localised changes in areas such as embayments,[18] sand spits, and beaches adjacent to, or facing, inter-island channels. Shoreline changes in North Tarawa are largely influenced by natural factors, whereas those in South Tarawa are predominantly caused by human factors and seasonal variability associated with El Niño–Southern Oscillation (ENSO). However, there are serious concerns for the future of South Tarawa reef islands as evidence shows widespread erosion along the ocean and lagoon shorelines and further encroachment onto active beach areas. This will disrupt the longshore sediment transport, intensify erosion, and increase the susceptibility of reef islands to the adverse impacts of sea-level rise.[19]

14. For Kiribati, the average sea state is dominated by swells from the south. The annual mean wave height is 0.78 m, the annual mean wave direction is 209° and the annual mean wave period is 12.17 seconds (s). In the Pacific, waves often come from multiple directions and for different periods.[20] In Betio, there are often more than seven different wave direction/period components with the majority coming from between south to southeast (see Figure 2). The significant wave height shows little change between the seasons at Betio. However, wave period is significantly higher from March to June with wave height peaks in winter, and wave period peaks in May. Typically, these changes are small but can be important during phenomena such as ENSO where extreme wave events[21] are likely to occur more frequently and can have significant negative impacts on coastal infrastructure and affect coastal hazard and adaptation planning, particularly in the face of sea-level rise.

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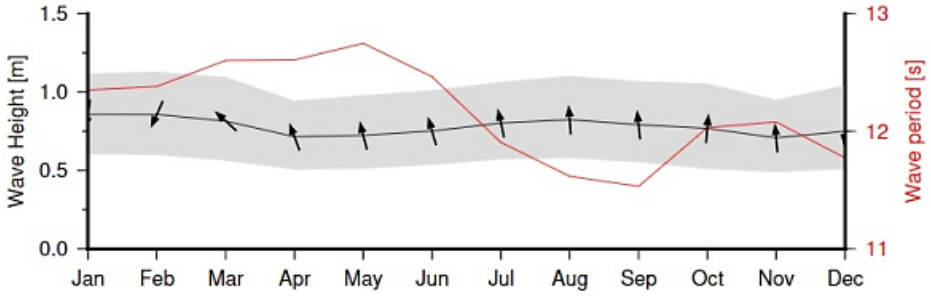
[16] Biribo, N. and Woodroffe, C.D., *Historical area and shoreline change of reef islands around Tarawa Atoll, Kiribati*, Sustainability Science 8 'Special Feature: Understanding and Managing Global Change in Small Islands, 345–362 (2013).
[17] Vertical accretion refers to the build-up of deposits or sediment in flood areas from periodic flooding of its banks and occurs in successive layers measured over time. The ability of land to sequester sediments and expand its volume is directly related to the pace of rising sea levels.
[18] This refers to a recess in a coastline forming bay-like formations often linked to irregular corrosion or modification of groundmass.
[19] See note 17 above.
[20] McGree, S. et al., *Climate Change in the Pacific 2022.* Chapter 5.9 'Waves', 70.
[21] Extreme waves are characterised as waves that are greater than twice the size of surrounding waves, are very unpredictable, and often come unexpectedly from directions other than prevailing wind and waves.

Figure 2. Monthly wave height (black line), wave period (red line) and wave direction (arrows).



Ocean warming, acidification, and deoxygenation

15. The projected changes to the key features of the tropical Pacific Ocean surrounding Kiribati relative to the long-term averages are expected to result in increases in sea surface temperature (SST) and ocean acidification (see Table 2). Under climate change, the surface area of the Pacific Equatorial Divergence Province (PEQD)—the part of the Pacific where Kiribati lies—is projected to contract and the convergence zone with the Warm Pool is expected to move eastward.[22] Changes in the position of this convergence zone due to ENSO will have a major influence on the abundance of tuna in the EEZ of Kiribati, which will result in significant losses of GDP and threaten food security.[23]

Table 2. Projected changes to the ocean surrounding Kiribati.[24]

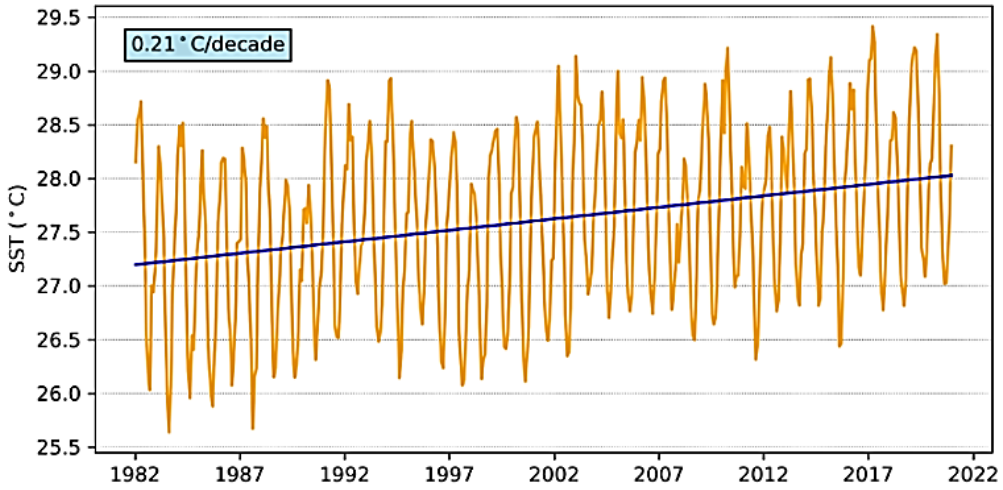
Ocean feature	1980–1999 average	Projected change			
		B1 2035	A2 2035	B1 2100*	A2 2100
Sea surface temperature (°C)	29.2[a]	+0.6 to +0.8	+0.7 to +0.8	+1.2 to +1.6	+2.2 to +2.7
Sea level (cm)	+6 since 1960				
IPCC **		+8	+8	+18 to +38	+23 to +51
Empirical models ***		+20 to +30	+20 to +30	+70 to +110	+90 to +140
Ocean pH (units)	8.08	-0.1	-0.1	-0.2	-0.3
Currents	Increase in South Pacific gyre	SEC decreases at equator; EUC becomes shallower; SECC decreases and retracts westward			
Nutrient supply	Decreased slightly	Decrease due to increased stratification and shallower mixed layer			< -20%

* Approximates A2 in 2050; ** projections from the IPCC-AR4; *** projections from recent empirical models {Chapter 3, Section 3.3.8}; a = average for EEZ derived from the HadISST dataset; SEC = South Equatorial Current; EUC = Equatorial Undercurrent; SECC = South Equatorial Counter Current.

[22] Bell J.D., Johnson J.E., Ganachaud A.S., Gehrke P.C., Hobday A.J., Hoegh-Guldberg O., Le Borgne R., Lehodey P., Lough J.M., Pickering T., Pratchett, M.S. and Waycott M. (2011), *Vulnerability of Tropical Pacific Fisheries and Aquaculture to Climate Change, Summary for Pacific Island Countries and Territories*. Secretariat of the Pacific Community, Noumea, New Caledonia.
[23] *Ibid.*, 92. Modelling for yellowfin tuna is now in progress and the trends for bigeye tuna are projected to decrease progressively under moderate emissions scenarios.
[24] Table from *Ibid.*, 91.

16. Ocean temperature, as measured by the Tarawa tide-gauge, reaches on average a maximum of approximately 30°C from June to October, but individual months can get as high as above 32°C from September to November; minimum average temperature is 29°C in February.[25] Equatorial locations typically have little average variation but can drastically change in a given year depending on the ENSO cycle. The variability in temperatures between September and February is reflective of the peak months of ENSO.[26] The 1981–2021 sea surface temperature (SST) averaged over the EEZ regions is shown in Figure 3.

Figure 3. Sea surface temperature from satellite observations averaged across the Kiribati EEZ (orange line) overlaid by the linear regression trend (blue line).[27]



Coastal fisheries, pelagic fisheries and tuna stock

17. For an atoll island country like Kiribati, the significance of its fishery sector cannot be understated. Two sources of data were used to estimate the value of subsistence fishing in Kiribati: Ministry of Fisheries data and the 2006 Household Income and Expenditure Survey (HIES). Estimates of the economic value of subsistence fishing using these two sources differed significantly, probably because the scope, coverage and timing of the data sources are different. The gross value of subsistence fishing, estimated from multiple data sources, was between A$3.7 million and A$38.5 million per year. The lower estimate of A$3.7 million per year is unlikely to be a true reflection of actual subsistence value. Instead, the Ministry of Fisheries estimate of net value of A$9.6 million

[25] McGree, S. et al. *Climate Change in the Pacific 2022.* Chapter 5.7 'Sea surface temperature', 66.
[26] El Niño and La Niña have perhaps the strongest influence on year-to-year climate variability in the Pacific. These phenomena are a part of a natural cycle known as El Niño–Southern Oscillation (ENSO) and are associated with a sustained period (many months) of warming (El Niño) or cooling (La Niña) in the central and/or eastern tropical Pacific. The ENSO cycle operates over timescales from two to seven years. *Ibid*., 10.
[27] Figure from *Climate Change in the Pacific 2022,* 67. The data show a trend of 0.21°C per decade with a 95% confidence interval of ±0.06°C.

to A$19.2 million per year is used. Subsistence fishing costs are minimal, so the value added was similar to the gross value, approximately A$9.6 million to A$34.5 million per year.[28]

18. The analysis of commercial fishing was done for two categories: small-scale (household-level) commercial fishing and industrial fishing. The economic value of commercial fishing was estimated from various data sources. The gross value of small-scale commercial fishing ranged from A$7 million to A$25 million per year. This estimate included small-scale tuna fishing, with a gross value of about A$4 million per year. Small-scale inshore commercial fishers generally use outboard engines and therefore their operational costs are higher than those of subsistence fishers. In this analysis, fuel costs were assumed to be 60% of the gross output, leaving a value added of A$2.8 million to A$10 million.[29]

19. It is estimated that the production from coastal subsistence fisheries in Kiribati in 2021 was 11,000 tonnes, worth A$30 million to fishers. The HEIS 2019–2020 indicates that 44% of households in Kiribati participate in fisheries activities. In 2021 the tuna catch by the locally based longliners was 2,686 t, with an in-zone value of A$17.6 million (see Table 3).

Table 3. Locally based offshore catches in Kiribati waters.[30]

	2017	2018	2019	2020	2021
Volume (t)	1,393	998	3,429	4,768	2,686
Delivered value (US$)	7,411,113	6,844,765	21,406,374	32,539,382	16,965,033
In-zone value (US$)	5,558,335	5,133,574	16,054,781	24,404,537	12,723,775
In-zone value (A$)	7,170,252	7,289,675	23,118,884	32,213,988	17,558,809

Source: FFA (2022b), with modifications

20. Tuna is the largest source of revenue for Kiribati. The latest *Fishing License Revenues in Kiribati* gives the fishing license revenue for 2017 as A$169.0 million, for 2016 as A$143.3 million, and for 2015 as A$197.8 million.[31] The fishing license revenue is given in the 2023 Recurrent Budget, which shows that in 2021 it was A$161,445,289; so with the total government revenue of A$246,458,807, the fishing license revenue equates to 65.5% of total government revenue.[32]

[28] Gillett R. and Fong M. 2023. Fisheries in the economies of Pacific Island countries and territories (Benefish Study 4). Noumea, New Caledonia: Pacific Community, available at https://www.spc.int/DigitalLibrary/Doc/FAME/Manuals/Gillett_23_Benefish4.html.
[29] *Ibid*., 95.
[30] Table from *Ibid*., 98.
[31] MFMRD 2019. Fishing License Revenues in Kiribati, 2018 Report. Ministry of Fisheries and Marine Resource Development and Ministry of Finance and Economic Development, Tarawa.
[32] NEPO. 2022. Recurrent Budget: Building Back Better and Stronger. National Economic Planning Office, Ministry of Finance and Economic Development, Tarawa.

21. The improved fishing revenue was responsible for a significant turnaround in national finances. Before 2012, the budget was regularly in deficit, and there was an ongoing reliance on drawdowns on Kiribati's sovereign wealth fund, the Revenue Equalisation Revenue Fund, or RERF. However, from 2013, there were significant surpluses and contributions to the RERF. Examination of the government revenue estimates between 2012 and 2015 reveals a strong conservative bias in fishing license forecasts, with actual revenue exceeding estimates by $318.4 million over this period. By contrast, budget documents estimated that the net financing need was $91.8 million in deficits across the four years. As a result, there was a significant surplus of cash flowing onto the government balance sheet. Non-RERF cash balances increased from $11.3 million in January 2013 to an estimated $173.5 million by the end of 2018 (Ministry of Finance and Economic Development [MFED], 2018), and the RERF balance grew from $613.9 million to $994.4 million over that same period—just short of the government's $1 billion target. State-owned enterprise commercial debts with ANZ were also eliminated within this timeframe, and the government invested $10 million in a land purchase in Fiji.[33]

22. Of all the PICTs, tuna dominates the nearshore pelagic catch in Kiribati. These coastal fisheries take only a tiny fraction of the regional catch of skipjack and yellowfin tuna, the vast majority of which are targeted by offshore industrial fishing, and which do not contribute to the domestic fish supply of PICTs. Further, fish and invertebrates from reefs, mangroves, and other nearshore habitats dominate the catch targeted for subsistence fishing, the true value of which is likely underestimated for Kiribati. Further, Kiribati's location in the middle of the Pacific Ocean is a breeding and feeding ground for tuna, which contributes to the health of the oceans and global food security, not just that of Kiribati. This means there could be longer-term economic and environmental costs for Kiribati, the region and beyond as climate changes impacts worsen.

Food security

23. Kiribati has the highest per capita consumption of fish of any country in the world.[34] Kiribati's dependence on its fisheries resources, in particular tuna, has serious implications for its economic development and food security. For example, tuna access fees contribute to approximately 50% of government revenue and 25% of its GDP (see Table 4 in conjunction with above analyses). A significant medium- to long-term challenge in Kiribati is ensuring future food security without compromising lagoon fishery sustainability. Unsustainable fishing practices exacerbate climate-driven economic, environmental, and social impacts on the country, and climate change affects habitat availability and quality. Additionally, coastal and lagoon fisheries play a significant role in

[33] Benefish Study 4, *supra* note 28, 106.
[34] Food and Agriculture Organization (FAO), *The Republic of Kiribati*, Country Brief (2018).

generating local employment and livelihoods, further affecting food security for Kiribati in the face of global climate change.[35]

Table 4. Fishing contributions to gross domestic product (GDP) in A$ thousands.[36]

	2017	2018 r	2019 r	2020 r	2021 p
Informal sector fishing for cash sales	5,678	6,183	5,924	6,403	5,959
Seaweed growers	75	75	75	75	75
Informal sector fishing for subsistence	9,464	10,305	9,874	10,672	9,932
Formal sector fishing	4,973	10,229	9,306	6,223	8,226
Total fishing contribution	22,207	26,792	25,179	23,373	24,192
Kiribati GDP at market prices	245,532	262,640	252,344	258,139	302,793
Fishing as a % of GDP	9.0%	10.2%	10.0%	9.1%	8.0%

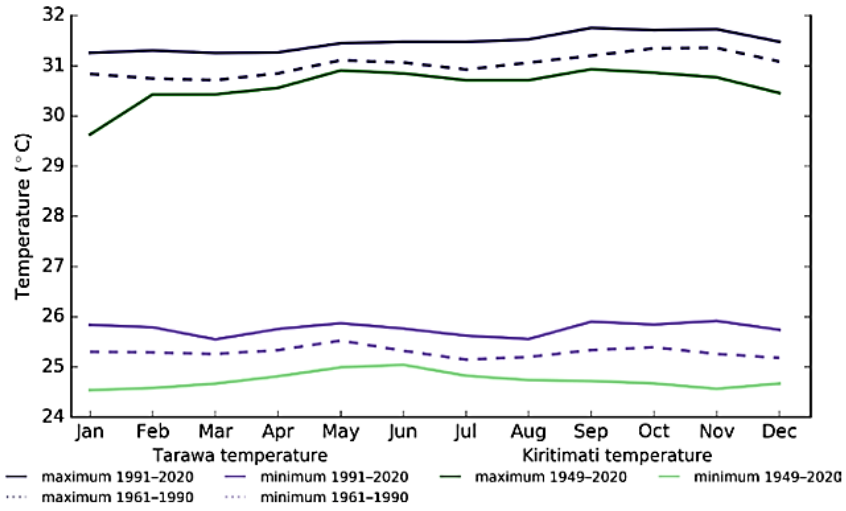
Source: NSO (unpublished data); r = revised; p = provisional

Temperature rise

24. Kiribati has a hot, humid tropical climate, with air temperatures very closely related to the temperature of the oceans surrounding the small islands and atolls. There has been a clear shift towards warmer average monthly temperatures during 1961–1990 and 1991–2020, with warmer average air temperatures occurring in all months throughout the year for Tarawa (see Figure 4).[37] Average annual and seasonal temperatures have increased significantly in Tarawa such that a relatively small size of year-to-year fluctuations in temperature can be attributed to its equatorial location.

[35] WorldFish, *Fish for the Future: Fisheries development and food security for Kiribati in an era of global climate change*, CGIAR Consortium (2014).
[36] Table from *Ibid*., 103. Only limited information is available on the method used by the National Statistics Office (NSO) to estimate the fishing contribution to GDP, and the NSO website was not functional during late 2022 and early 2023. HIES data is used to determine the value added to the informal fishing sector. The yearly exchange rates to the United States dollar between 2014–2022 are as follows: 1.22, 1.37, 1.37, 1.29, 1.42, 1.44, 1.32, 1.38, and 1.53, respectively.
[37] McGree, S. et al. *Climate Change in the Pacific 2022.* Chapter 5.5 'Air Temperature', 64.

Figure 4. Maximum and minimum air temperature seasonal cycle for Tarawa (purple) and Kiritimati (green) and for the period of 1961–1990 (dotted lines) and 1991–2020 (solid lines).[38]



Drought and water security

25. Kiribati is experiencing acute water shortages resulting from a prolonged La Niña weather pattern and low rainfall. Prolonged episodes of this result in drought and can lead to significant water security issues. Already in 2022, Kiribati experienced a state of emergency due to severe drought. As drought in Kiribati worsens, so do the challenges and threats to water via contamination, brackishness, inaccessibility, and freshwater availability to large portions of the population. For example, water assessments covering 1875 households in Betio, the largest township of Kiribati's capital city of South Tarawa, show that the water for 73% of tested households showed levels of contaminants, indicating that contamination of drinking water in Betio is widespread.[39] Reports from the majority of island councils on the outer islands point to the fact that accessing freshwater is becoming increasingly difficult and that the prolonged drought has already taken a toll on livelihoods and food security of communities in these islands.[40] This situation of high water stress due to low rainfall and dry conditions is expected to persist, especially in La Niña seasons.

Agriculture

26. Access to sufficient clean water resources, coastal defences, and adequate food crop development is limited on atolls like Kiribati. To address these development issues, the Government of Kiribati is engaged in numerous programmes and projects to enhance its resilience, especially with regard agriculture and climate change impacts. Among these is the Kiribati Livestock Production Concept

[38] SPC notes that there is a high amount of missing temperature data for Kiritimati. The average 1949–2020 temperature cycle is available.
[39] *See* Pacific Drought Report – May 2022, available at https://reliefweb.int/disaster/dr-2002-000244-kir.
[40] *Ibid*.

to support Climate Change Adaptation and Food Security. Under the concept, the Kiribati Government seeks to address food security by increasing national capacity in the pig and chicken production sectors.[41]

27. In 2011, the Government of Kiribati requested new regional climate change programmes to support communities on outer islands in their efforts to adapt to the adverse impacts of climatic changes and variability, and to strengthen the island's response capacities to man-made and natural hazards with a holistic and integrated approach. Instead of focusing on only selected villages or sectors, this Whole-of-Island Approach targets the whole island ecosystem, communities and government structures while also considering its relationships with the national government, partners, communities and their land.[42]

Coral reefs and biodiversity

28. Ocean acidification has been increasing in Kiribati's waters and will continue to increase, which threatens coral reef ecosystems. Biodiversity and the natural environment in Kiribati face extreme pressures due to climate change, and loss of some species of coral, fish, bird, and terrestrial species is likely without proper and effective conservation measures.

29. Additionally, ocean acidification can play a large role in coral reef health. For example, calcium carbonate is used for the creation of external skeletons for multiple marine organisms such as plankton, coral reefs, and shellfish. Increases in atmospheric carbon dioxide (anthropogenic) are understood to lead to reduced levels of calcium carbonate saturation on the ocean's surface via an increase in ocean acidification thereby decreasing carbonate ion concentrations. As a result, there are serious concerns that if carbonate minerals, such as aragonite, become undersaturated, it could undermine that already fragile state of current ocean ecosystems.[43]

30. Kiribati has a large area of coral reefs as well as small areas of mangroves, deepwater, and intertidal seagrasses as well as intertidal flats that support many important fisheries species. Climate change is expected to add to the existing local threats that these areas already face, resulting in declines in the quality and area of all habitats (see Table 5).[44]

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[41] This concept is supported by SPC's Land Resources Division and the SPC, USAID and GIZ climate change programmes, which began in 2013.
[42] Learn more about this initiative at https://ccprojects.gsd.spc.int/kiribati-video.
[43] World Bank Group, *Climate Risk Country Profile Kiribati* (2021), available at https://climateknowledgeportal.worldbank.org/sites/default/files/country-profiles/15816-WB_Kiribati%20Country%20Profile-WEB.pdf
[44] McGree, S. et al. *Climate Change in the Pacific 2022.* Chapter 9 'Kiribati', 93.

Table 5. Projected changes to coastal habitats in Kiribati.[45]

Habitat feature[a]	Projected change (%)		
	B1/A2 2035	B1 2100*	A2 2100
Coral cover[b]	-25 to -65	-50 to -75	> -90
Mangrove area[c]	10	50	60
Seagrass area[c]	< -5	-5 to -10	-10 to -20

* Approximates A2 in 2050; a = no estimates in reduction of intertidal flats available; b = assumes there is strong management of coral reefs; c = indicative estimates from Fiji and French Polynesia {Chapter 6}.

CONCLUSION

31. Climate change is causing significant harm to Pacific Island countries and territories, with atoll nations like Kiribati being injured and/or specially affected due to reef islands' extra vulnerability to the adverse effects of climate change. This harm materialises in the form of increasing sea level rise, ocean temperatures and ocean acidification, coastal erosion, extreme wave events, prolonged drought, and other impacts.[46] Projections indicate that these impacts are bound to intensify with climate change, threatening to render some or all land territory of these countries uninhabitable. The extent to which this existential threat materializes will heavily depend on actions taken to curb anthropogenic greenhouse gas emissions—the vast majority of which is generated outside of its borders—as well as measures to adapt to climate change and respond to the loss and damage it causes.

[45] Table from *Ibid*.
[46] *See generally*, McGree, S. et al., *Climate Change in the Pacific 2022.* Chapter 9 'Kiribati'; and Bell et al., *Vulnerability of Tropical Pacific Fisheries and Aquaculture*.

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

01 – Statement of Mr. Kaon Tiamere, Director of Oceanic Fisheries Division, Ministry of Fisheries & Marine Resources Development

20th February 2024

BACKGROUND

1. My name is Kaon Tiamere, and I am a national of the Republic of Kiribati. I was born on Tarawa and my current address is Betio.

2. The declarations of fact made in this Statement are based on my direct knowledge of the facts.

3. I joined the Ministry of Fisheries and Marine Resources Development in 2004 after I graduated with a BA in Marine Affairs & Geography from the University of the South Pacific in 2003. I worked for coastal fisheries but joined Oceanic Fisheries Division (OFD) in 2005 for 9 years as a Fisheries Officer and Senior Licensing Officer. My main role was to look after licensing and fishing revenue. In 2015, I received a Master in Fisheries Policy (honored) from the University of Wollongong. Upon return, I continued work for OFD as Principal Fisheries Officer, again in the licensing department until 2022 when I became Director of the division.

4. My position as Director of Fisheries is challenging. This is primarily due to Kiribati being a member to a number of regional, subregional and international fisheries organizations which oblige Kiribati to comply with agreed measures adopted at these conventions. Continued change in fisheries dynamics, administration, technology and climate change mean more commitments and obligations for the division moving forward. The Director's mandate is to ensure maximizing economic benefits from oceanic fisheries, tuna in particular, and at the same time managing these resources sustainably for current and future generations. The power of the Director is provided in the Fisheries Act 2010.

5. The major objectives of the department of fisheries are contained in the Ministry Strategic Plan. These include the following main objectives:

- Advancing Sustainable Ocean/Fisheries Investment, Blue Finance and Economic Prosperity
- Sustainable Management & Building Resilience of Ocean Resources
- Institutional Strengthening, Partnerships and Inclusive Human Capital Development

6. Of the many factors affecting fishing operations and fishing revenue, climate change is one of them. The continual changing nature of climate shift, and limitations to determine the movement of fish stock due to climate change, is a major challenge in achieving or meeting economic target set by the Government.

7. Speaking about sustainability of the tuna fisheries and the economic yield that would be derived in the long term from the fishery, the biggest concern is climate change and the potential impact on our economy and the livelihood of the people dependent on them. Beside fishing revenue as the main economic earner to the Government, tuna also provides small-scale social-economic activity and sustenance to local communities.

COMMERCIAL FISHERIES

8. Commercial fishing is the main economic arm of the Government from licensing of fishing vessels. Major distant water fishing nations have been fishing in our Exclusive Economic Zone (EEZ) since Kiribati declared its 200 nautical mile EEZ and continue to play that significant role to generating income for the Government. **Fishing revenue contributes, on average, about 72% to Government total budget annually**[1]. Main fishing companies are from Korea, Taiwan, China, the EU and the US. There are also fishing companies from neighboring Pacific Islands currently licensed under some regional arrangements. The main role of fisheries (oceanic) to Kiribati falls under livelihood, employment and economic growth.

9. **As far as commercial tuna fishery is concerned, new scientific projections (in 50 years' time)[2] on movement of tuna stocks in the future claims that tuna will move to the east due to change in oceanographic conditions (climate change). Based on these findings, there are two scenarios that likely to occur. First is the horizontal shift of tuna from the west to the east. Normally tuna congregate in the western Pacific (off the eastern coast of PNG, FSM and Solomon Islands waters) and if these claims are likely to be true, then it would mean a loss to Pacific Islands lie in the western Pacific who rely on tuna resources for economic development and food security.** For Kiribati, the west to

[1] Fishing licence revenue 2018 - report jointly produced by MFED and MFMRD available at https://www.mfed.gov.ki/publications/fishing-license-revenue-2018-report
[2] "Pathways to sustaining tuna-dependent Pacific Island economic during climate change accessible at https://doi.org/10.1038/s41893-021-00745-z

east migration of tuna in future could mean a gain in some respect given the position of Kiribati's three (3) EEZs (Gilbert to the west, Phoenix at the center and Line to the east) and the similarity of the shift to El Nino conditions – the event associated with increased productivity in our EEZs, increase in sale of fishing days and escalation of fishing revenue. However, **the question to ask is what the range of the shift is and whether the 3 EEZs remain within the shift.**

Another important finding from the study is the likely vertical migration of tuna stocks to temperate zones as temperature of the ocean increases. This is a concern to Kiribati if fish move poleward away from the equatorial region (that's where our islands lie) and if fish also move deeper to greater depth to avoid increase in sea surface temperature.

10. **Change in climate conditions over the long run affects the distribution pattern of tuna fisheries over large ocean areas. This would have a direct impact on fishing operations, profitability and viability of the fisheries industry.** For instance, the tendency of skipjack tuna moving east in future would mean fishing companies targeting this species need to change fishing strategy, tactics, operation bases, home port, etc. Most fishing companies and landing ports are located in Asia so the change in fish distribution would involve costly operations fishing further to the east, however it could mean development in the eastern part of the Pacific. In Kiribati context, this would be good for the Line Islands, Xmas in particular.

COASTAL FISHERIES

11. For coastal fisheries, climate change in particular the warming of the Earth due to the increase in carbon dioxide (CO_2) in the atmosphere would lead to ocean acidification and the dead of coral ecosystems and the fisheries therein.

12. For Kiribati fisheries, offshore fisheries normally refer to fisheries fished or harvested outside the jurisdiction of coastal fisheries, that is outside 3 nautical miles.

NATURAL RESOURCE MANAGEMENT

13. Fisheries or tuna for instance is a natural resource but fisheries management is totally different from natural resources such as minerals or oil for a number of reasons. In the case of tuna, these are highly migratory and transboundary species therefore their management require collective effort from all players (fishers, managers, Government, etc.) participating in tuna fisheries. More localized resources e.g., reef fish are easier to manage than those of migratory in nature.

14. The management of commercial fishing faces multiple challenges due to climate change impacts since climate change can affect stocks in many ways such as shift in stock distribution, biological behavior, health and abundance, habitat loss (for coastal fisheries).

15. The marine environment is a complex ecosystem and a lot of interactions and connectivity between species one way or another but in a balance environment. Climate change impacts on a particular species (directly or indirectly) would have an impact on other species dependent on it.

PREPARING FOR THE FUTURE

16. The economic impact of climate change on fishing revenue needs to be looked at especially how much fish will move away (biomass) and the economic value of the loss it would entail to tuna-dependent countries like Kiribati.

17. Despite the projections, there are also uncertainties in the models however, **what is important is not the question about "IF" but "When" these events will occur and "How" we respond to them.**

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

02 – Statement of Mr. Brian Ritang, Betio Community, South Tarawa

22nd February 2024

BACKGROUND

1. My name is Brian Ritang, and I am a national of the Republic of Kiribati. I am 53 years, and my current address is Betio[1].

2. The declarations of fact made in this Statement are based on my direct knowledge of the facts stated.

3. I have just moved to this place in the last two years. So right now, this is my home. Before, I used to live in Bikenibeu. I am a grandfather of four children, I have five sons and one daughter. My grandfather is from Tamana and Onotoa. My grandfather is the one who composed the national anthem. From my mother's side is from South Tarawa and Maiana. I speak Kiribati language and my second language is English.

4. I was born in 1970's at the central hospital which is now the Ministry of Health in those days.

5. I'm a retired policeman since 2015 and I live here in Betio since then because I had to move from my governmental house. I came here because this is our home from my mother's side. It is right on the beach at the very end of Betio. I used to live here when I first married, and I came here with my wife.

6. It's very difficult to describe this land. Most of the lands are owned by the government and before, right at the end where they used to have the peak size, there's a bit of land, that's where they own. There was only a little bit of land, but then after some years it expanded in the 90s. And so, these areas where we reside now, came about maybe 1996.

[1] See photo 1, Mr Brian Ritang in front of his house

7. In the past, my mother used to plant breadfruit trees, but they can't live long. They only last two years and then they died. I guess the soil is not well fertilized anymore. The only trees which are still alive are the coconut trees. They can grow near the sea.

8. For the animals, we have pigs only and they are important, so we save them for big feast or celebrations.

COMMUNITY

9. The community is made of women and men. The work within the community is determined by the decisions made by the elders. Work is not determined by gender, we help each other unless if the work requires strength, then men will usually do such kind of heavy work.

10. Elders are considered important knowledge keepers in our community. They know how to build canoes, fishing, cutting toddy. They also know how to build local houses, small and big.

11. Conflicts arise mainly about fishing. People either go fishing with engine boats or canoes. In the southern, you cannot go on the boat with the engine, the houseboat engine is restricted. So, it creates conflict between the community and the local government. The elders are enforcing these decisions and make punishment. Although it is not fair, we respect the decision.

WATER

12. For water, we have two types of water: the one for cooking coming from the pipe and the one for drinking from the tank. The Government supplies water two or three days a week. For us here, it's on Tuesdays and Thursdays. Recently, the rain continued to fall so all the tanks are full and have reserved them for our needs. Once the tank is empty, we must buy the water from the private company and the price is 10AUD a tank. So, if you have a 10-ton tank, it is 100 AUD plus the truck which brings the water which costs 30 AUD. Three weeks ago, our water tank was dry, so we just filed it up with the supplier.

TRADITIONAL KNOWLEDGE

13. When my grandfather was alive, he only passed down his traditional knowledge to his favorite grandchild. My grandfather didn't favor me, so there was no chance that he was going to pass the knowledge to me. I guess there is no time for the family to get together in the evening and do it. There's no time for that. Each family is different, but for me this is how traditional knowledge is passed.

14. As I talked before, my grandfather was a man of the office. He was an educated man and so, he didn't know much about the traditional knowledge or maybe did know but he didn't want to dig into it.

COASTAL EROSION

15. Before 1996, the land I'm talking about was in the middle of the sea there. This place where the ports are and here, we are sitting in the middle of the sea in the 19th. Later, the sand came where we are; only two years ago, the little boys used to play soccer 15 meters from that point up to the sea because there was a land there. This land has disappeared. That side is disappearing, but that side is coming[2].

16. My house is situated where the land is disappearing, and I try to make it change to prevent erosion and sea-level to reach my house. I don't want to be victimized by the change, so I keep staying on this. Last year in October-November, my wife and I were having lunch, and the tide roughly came to the shore in a few minutes. That was very surprising. After, there was a strong wind from the west. There was an extension in front of my house and the waves broke it. Two hours later, the tide was very high like if it was the full moon or the first moon. My house was flooded with the sea water and all my belongings were wet. So, we moved in our reserve home which is for the community[3].

17. After this event, we have tried to make protection against the sea with traditional soft measures or traditional wood tied with coconut leaves with the support of the climate change division[4]. It didn't last more than two months. The Office of Te Beretitenti (President) then gave big sandbags[5] for us to fill in but I prefer the traditional way.

18. When we built the sandbags, there was an argument between my neighbor and I because I had to move some things onto his boundary. This is how it is when you're trying to find space and you might go over someone else's boundary, conflicts arise. Some conflicts are easily settled between the neighbors whereas if some are not resolved they result as Court Cases.

FOOD

[2] See cadastral data provided by the lands' division 1970s vs 2020
[3] The community hall is situated inside the village, behind Brian's house. It is an open elevated place.
[4] Ministry of Environment, Land, Agriculture and Development
[5] See photo 2

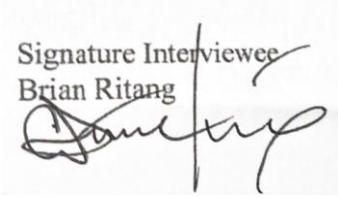
19. Our community eat fresh fish from the lagoon, rice and bread. Sometimes if we have some cash, we go to buy some vegetables. If I could, I would prefer to make a plantation rather to buy the big price of the other locals.

20. Here, if we have money, we spend it in a few minutes. The unemployment funding from the Government gives 50AUD every month for those who are unemployed from 18 and above so we buy rations of rice for the next one or two weeks.

21. Before, when I visited my mother here, there were breadfruit trees, but they have all gone because of the sea water which brings salt to the soil. Even coconut trees are dying. There is no way to make a plantation here due to the sand is not fertilized so the impact on us is our health with a lot of diabetes, hypertension, and blindness. I do have diabetes.

CLOSING

22. To finish, I want to say Please help us, any help. Thank you.



Signature Witness: Benateta Atanteora
Kiribati State Attorney

Photo 1: Mr Brian Ritang in front of his house

Photo 2: the sandbags provided by the Government

Cadastral plan of Betio 1970s vs 2020 showing the place where the coastal erosion

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

03 – Statement of Mr. Timereta Eria, Tebikenikoora Community (Eita), South Tarawa

23rd February 2024

1. My name is Timereta Eria[1], and I am a national of the Republic of Kiribati. I am 52 this year.

2. The declarations of fact made in this Statement are based on my direct knowledge of the facts stated.

3. I was born here on the island of Tarawa and have always lived in Tebikeinano - we call it Tebikenikoora which means golden beach - since the church has been established.

4. My dad was the first leader of this church, he helped everyone and understood English. Both of my parents passed away. I have 4 brothers and one sister.
   I am married since 1997 and I have 5 children, only two now. 3 passed away when they were very young.
   My grandfather from my dad was a farmer and helped with traditional medicine. From my mother side, my grandfather started the church.

5. For my work, I am currently the Principal of the Bible School at the Assembly of God Church since 2004.

PLACE

6. Tebikenikoora, this piece on land on the beach, has become a land for the Church. It currently includes more than 50 homes with a pre-school, school and a community hall[2] where meetings are held regularly.

[1] See photo 1
[2] See photo 2

At first, the men looked at it as a good place because it was not used and had a good view on the ocean. Before, the land was connected to the main road only by a walk pathway, we built the road in 1996.
Behind us, between this land and the main land, there is mangrove.
This land is flat, less than a meter higher than the sea level.

7. The only plant growing here is the coconut tree but it cannot grow to close from the sea. We try to plant cabbage but the soil is not good, we make compost to fertilize it because the soil is very poor and have to elevate the ground.

SEA LEVEL RISE

8. When Kings tide happen, twice a month, full moon and new moon, the sea is coming in most of the places and goes around 40 cm.
   Before, this was not a problem, the sea was not coming so high.
   The problem started around 2000 when the tide was so high so the sea from the lagoon forced its way to enter in the land. Since that time, we have been facing this problem, and it seems to be rising more than before.
   Places we didn't consider to be a problem before, now we need to put more sands and find solutions. More than half of the community is facing the same issue.

9. Most people now are aware of that problem, but it is hard to get prepared because sometimes it happens late in the afternoon or early in the morning. When in the morning, the children are sleeping on mats and can get washed by the sea.
   Now, people are trying to build houses which are elevated[3] but it needs a lot a wood, so it is very expensive.
   In our community, less than 20 people are working in the private companies and the government. Those who are not working, they go fishing for their food.

FOOD

10. Especially in South Tarawa, we eat imported food such as rice, tin meats and fresh fish. It is hard to include greens.

11. In our community, we can only afford cheap food like rice.

[3] See photo 2

12. This incurs health problems such as high blood pressure, diabetes. More than 10 people have diabetes in this community and even some children have been tested with diabetes recently.

13. Now we try to seek assistance from experts in planting to grow food in elevated soils or in containers like what I have done near my house[4].

14. We always ask assistance from our government to make sea walls but sea walls might also be washed away so need to find another design which will be stronger.

CLOSING

15. Sometimes we are thinking to move but it seems impossible because all the lands are occupied. To stay here, we need these homes with high floor and ensure we can grow plants.

16. For the future, I think we will come up with better living with all our attempts.

Signature Interviewee
Timereta Eria

Signature Witness: Benateta Atanteora
Kiribati State Attorney

[4] See photo 1 of the garden of Mr Eria behind his house

Mr Eria

Community Hall of Tebikeinano

Elevated houses in Tebikeinano

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

04 – Statement of Mrs. Kinaai Kairo, Director of Agriculture and Livestock Division, Ministry of Environment, Lands and Agriculture Development

23rd February 2024

1. My name is Kinaai Kairo. I'm the Director of Agriculture and Livestock Division. My background is in agriculture. I got my general agricultural Diploma from the University of the South Pacific, School of Agriculture in Samoa, and then my Bachelor's in agricultural economics from the University of Hawaii. I got my master's degree from the University of Queensland in Australia, and I did pursue my PhD degree with Penton University of Science and Technology in Taiwan in 2015, wanting to do a dissertation on developing a crop insurance with much focus on coconut production. But that dream was not materialized due to my family issues. So, I came back in 2016 to resume my position as Director of Agriculture.

2. My mandate is to work towards achieving the key priority areas, defined, and stipulated in both the governmental and development plan, known as the KDB and the KV 20. Taking those priorities and working along with my administrative team from my ministry, we developed a ministry operational plan, the MSP. From the MSP, myself, and my team here, all senior and heads of agriculture, from our different sections within the agriculture and life division, we develop our annual work plan. Most of the time the budget that we are given from government is not according to the costing of activities in our work plan. I see that one of my mandates as well to seek funding for all the activities that we have developed in the annual work plan and the MSP so that we can achieve those priorities outputs.

3. We receive a lot of interest now in agriculture, which is a very good thing that we can have funds for all the activities that we need to undertake. And I think all of those is because of climate change. **What we developed in all those annual work plans is nothing but food security. Everything that we do in that work plan is for promoting food production for food security**, whether it's a policy or it's a biosecurity bill or a procurement or a training. **We must build our capacity and our capability in producing more for the people.**

4. Knowing that agriculture is challenged with the forest soil and climate, we also ensure that importation of food and now fresh, though fresh agriculture producers do not harm the pest diseases that they can come along with those imports. Anything that is to be

imported into the country, this division also has the mandate to ensure that kiters is safeguarded from those PEs and diseases of plants and animals.

5. **The soils of Kiribati are classified as the poorest type of soils in the world.** Our soil is very poor, but even though we can farm those soil with technology, yes, I do believe that we have potential in improving the soil. We have some research in place with Australia and they assist us in developing compost. Compost is not a new thing to our people because they've been practicing it, but they don't have the very scientific background of why they use this and that in that amount of, so with research nowadays, it's really assisted the farmers to know why they're using this, why they must mix the organic materials with menu or some.

WATER

6. The other thing that I want to add which affects much of our ability to achieve our objective is the water. **In the past, drought was not very common. Nowadays, drought is a must to come every year and they don't come more frequently, but they are more tense. That's really affecting the production of not only the plants but the animals as well.** The water we use for agriculture is the same as for domestic usage. In that way, we are competing on the use of that water domestic use and agriculture. Most of the time, when it comes to shortage of water because of the drought or so, agriculture is given up. When we plan projects, we always forget about the water and I guess because it's an accessible and public asset, but that is really affecting our production.

FOOD PRODUCTION AND SEEDS

7. The seeds are also our biggest concern. Vegetables seeds we always received come as hybrid types and the farmers are not able to get their own seed from them. They must come all the time for these seeds repeatedly. Recently, we've been asking our donors to bring us the open pollinated varieties so our farmers can get their planting materials from these types of seeds. We are very careful with our seeds because we cannot produce them but instead, we import them.
   With seeds, our other concern is also about their storage. We need a proper laboratory to store them properly.

COMMERCIAL AND SUBSISTENCE AGRICULTURE

8. The commercial agriculture is not really important in Kiribati. We only have Copra. Our role in there is to select the best coconut seeds and provide it to the farmers. So, farmers can come to us for their seeds, or they can do their own. We are mandated to ensure that coconut planting is a must in our program. Our target for each island is 2000 new plants on a yearly basis. This figure is not the maximum, farmers can go beyond. From our side, we prepare the planting materials upon the request of the farmers.

9. Regarding subsistence agriculture, we have quite a lot of vegetable varieties that we are promoting. Research was conducted years earlier trying to find the type of vegetables that can grow here. We came up with quite a few vegetables including tomatoes, cabbages, cucumbers, watermelon, eggplant, pepper.

10. **With our soils, we are promoting the growing vegetables in containers, not directly in the ground because of the water sea problem. Along the coast, the salt intrusion is very common and that really affects our agriculture.**

TRADITIONAL PLANTS

11. The disappearance of our traditional plants like breadfruit or bwabwai is a combination of many factors, changing diet and lifetime. Most of the people don't want to eat this traditional food because it is time consuming to prepare them in opposition to import food which is readily available to consume.

12. We have a processing project for 2028 which aims to try to process traditional food crops in baby food, chips, and flour.

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

05 – Statement of Ms. Kautunata Kobia, Tebunginako village, Abaiang

24th February 2024

BACKGROUND

1. My name is Kautunata Kobia[1], I am a national of the Republic of Kiribati and I am 42 years.

2. The declarations of fact made in this Statement are based on my direct knowledge of the facts stated.

3. I currently live in Tebunginako on the island of Abaiang. I was born in Bikenibeu south Tarawa and I grew up in Abaiang, left to go High School in Tarawa and came back in 2000. I am a single mother of one daughter of 10 years.

4. My father is from Abaiang, he owns a lot of lands in Abaiang. My mother is from Tabiteuea in the southern island. I have two sisters and three brothers.

5. I speak Kiribati and English.

6. I am a nurse aid, chosen and paid by the Council of Tebunginako.

PLACE

7. Tebunginako is a village which consists of 400 people and around 100 households. Before, the young girls used to play soccer at the soccer field and represented the island in Kiribati national game called '*Te Runga'*.
   In 2019, this village represented the island and won the national games.
   Last year, they couldn't train because the sea has inundated the soccer field, up to the knee so they lost their title to the ladies of Betio Town Council[2].

[1] See photos 1 and 2 of Mrs Kautinata Kobia
[2] See photo 4 of the soccer field which is inundated by the sea at high tide

Now, they can practice only at low tide and use the other soccer filed next to the primary school.

8. The village has a committee chosen by several households; it is composed only by men. They meet once in a month and decides about the management of the village and matters that need to be resolved.
   They also blow the cone shell when there is a special occasion.

9. Our village is well known for its coastal erosion.

10. The coconut trees are important in Abaiang because they represent an important source of income with the copra. Prices have doubled recently.
    The other plants we have around here are breadfruit and bwaibwai (taro).

11. There are also pigs in the village. They are important for special occasions. Myself, I have two pigs.

RELOCATION

12. I came back for primary school in 1995 and my family has moved from one place to another which is around 1-2 km far. They moved because the soil was becoming very salty and the sea was coming too close to the houses. The old village has now been entirely destroyed by the sea[3]. We lived in the new place for several years until the sea came again in our garden in 1998.
    At that time, I was feeling bored and sad because before we used to have community programs in the older village where we would all gather. Now that we have moved, gathering has become difficult because houses are far apart.
    Before, if you need help, you don't have to ask for it, if the community members see that you need help they would just come and lend a hand. Now, it is different. Since we have been relocated, the families live on their own. Sometime, they share the food, especially breadfruit, but that is all.
    Fortunately, there hasn't been any conflict on the land because it belonged to our families.

CULTURE

13. The land we are living in was owned by our grandfather. I am grateful that the land where I am living now was owned by my grand-auntie (sister of my grandfather) and so she gave it to my father who gave it to us his children.

[3] See photo 3 of the old village

14. Now, we only do traditional dances for religious functions to compete with other villages. Before, we would do traditional dances for the youth; an old man from Tarawa was coming to teach us the dances. The last time he came was in 2008 and didn't come back since then. Before, each dancer had his/her specific trainer; now, the dance has been standardized and the instructor is the son of the old man. When the village requests, the instructor comes and the village would pay for his food and accommodation.

15. Women use to wave pandanus leaves to create mats, dancing costumes, preserving and cooking traditional food.
    My grandmother taught me all of these and I am waiting for my girl to come back from school to teach it to her myself.

16. If there is a conflict, we can call the special constable, police of the village, but there are no much conflicts in the community.

17. I would like to share a story from my village. Before, there was an old tale about Nareau which was believed that he was the creator in Kiribati. He was chased from an islet situated nearby and hid in Tebunginako in a hole surrounded by bwaibwai (Taro) leaves. People were looking for him so he went to another village close to here, he threw his teeth in the sea and that's why we have sharp rocks in the sea in front of us.

FOOD AND WATER

18. Here people usually eat fresh fish and sea shell with rice. When it is the season for breadfruit, we eat breadfruit. When I was a kid, we used to eat fish, seashell, bwaibwai and breadfruit but rice is easier to cook.
    We also moved to rice because elders are not around to remind us to cook traditional food. People are not going too much to the gardens now, one of the reasons is that it is getting hotter. I can say that I feel that is hotter now than I was a child.

19. There are two seasons in Kiribati: the wet season from October to February and the dry season from March to September. When the last drought happened, it lasted around one year. I can't remember the exact year. Water tanks were empty, so we relied on well water we boiled. Some wells (ground water) got salty and mine was one of them, so I had to use the one of my neighbors who was kind enough to let me use it.

FUTURE

20. We have to encourage and promote sports to the youth.

21. The developed countries which are doing greenhouse gases emission have to limit their activities because I don't want to move to another land.

Signature Interviewee
Kautunnata Kobia

Signature Witness: Kiribati State Attorney
Benateta Atanteora

Photo 1: Kautunnata Kobia

Photo 2: Kautunnata Standing on the sea wall of the old village

Photo 3: Old village of Tebunginako

Photo 4: Old soccer field inundated at high tide

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

06 – Statement of Buburenga Ieu, Tebunginako village, Abaiang

24th February 2024

1. My name is Bubunrenga Ieu[1], and I am a national of the Republic of Kiribati. I was born on the 15th December 2000 and I am 23 years.

2. The declarations of fact made in this Statement are based on my direct knowledge of the facts stated.

3. I am from Tebunginako and I have lived here since I was born. I only went to North Tarawa for 3 years to go to primary school, then to South Tarawa to attend secondary school. I came back in 2021.

4. I am living with my parents; we are a family of 6 girls. From the 6, one sister has been adopted by my uncle. My two parents are from Abaiang as well as my grandparents.

5. I speak Kiribati and a little English.

6. I am unemployed. To earn money, I am collecting fresh coconuts and sell them which brings me 1 AUD for 3 coconuts. I am also the treasurer of the group of youth within the community. Our main activity is to get soils for the construction of the new church of the village. On weekends, we also organize programs and social events.

7. My parents used to live in the old village of Tebunginako but I don't know much about it because they didn't share stories with me. I only have heard that there were a lot of coconut trees in the old village but most of them have died.

8. Regarding traditional knowledge, my mother knows how to weave local mats and sow thatch for the roof. I only know how to sew the thatch but not yet how to weave. My sisters have been taught how to weave but I am the youngest, I haven't had the chance to learn it. I want to learn how to weave mats for when I will settle with my own family, I can weave our own mats to sleep on.

[1] See photo 1 of Mrs Bubunenga Ieu

I also know the traditional dances.
Elders are very important for the community and I respect them a lot.

9. In my daily routine, I eat rice, fish, breadfruit and seashells. Sometimes, I also eat traditional food like pandanus fruits, and I drink toddy, a drink we get from the flowers of the coconut trees.

10. Since I was a child, I have seen changes in the coastline with the soil being eroded. I have noticed that it is getting hotter, the air temperature has increased from when I was a child.

11. **I live a very happy life. I wish to stay in my village and not have to relocate because I am happy here.** I wish my place won't be affected by the erosion so I can stay where I live.

Signature Interviewee: Bubunrenga Ieu

Signature Witness: Kiribati State Attorney
Benateta Atanteora

Photo of Bubunrenga Ieu

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

07 – Statement of Katimero Nawere, Temaiku Village, South Tarawa

25th February 2024

BACKGROUND

1. My name is Katimero Nawere[1], and I am a national of the Republic of Kiribati. I was born on the 14th February 1953 and I am 70 years.

2. The declarations of fact made in this Statement are based on my direct knowledge of the facts stated.

3. I am living on the island of Tarawa since 2003, I lived in Bikenibeu for 2 years and in Temaiku since 2005.
   I am from Nonouti island. I left this island with my mother and my sisters around 1958 because my father was mentally unstable. I grew up in Abemama, another outer island, and only attended primary school before I dropped out.
   I came in Tarawa in 2003 to attend the wedding of my nephew and my niece found me a job as security so I decided to stay because my children were studying here in Tarawa.
   In Abemama, I was a foreman in agriculture.
   My wife had two children before we got together and we had another two children together.
   The land where I am now is a family land belonging to my wife's great grandfather.

   Nuea
   ↓
   Kibaria
   ↓
   Toantebure
   ↓
   Raubiti (wife)

4. Although I don't know much about Nonouti Island because I left when I was very young, I feel like I belong to it because it is my father's land.

[1] See photo 1 of Mr Katimero Nawere

5. I speak Kiribati and a little English.

6. I am the elder of my family and I used to be the chairman of the family community.

PLACE

7. In Abemama where I used to live before, it is nice, a cool place, not hot like here, there is plenty of food there, not like here.
   In Temwaiku, until recently, I lived on a land in what we call the fishponds, and it was really uncomfortable, especially during heavy rainfalls or high tides. During full moon, the sea was coming from the ocean side overflowing the ponds and entering in to the lagoon side, it could reach the hips and when the wind was blowing, it was even worse. The land was very narrow.

8. Five years ago, there was land here but very narrow with only fishponds. Because the land was owned by my wife's family, we decided to fill in the ponds surrounding the land. Every payday, I filled the land with truck full of sand that my family was paying for.
   Later, a sea wall has been built on the ocean side which avoids the waves to come in but I am still afraid that it might break.

HEAVY RAINFALL

9. Now, when the heavy rain is coming, the water is everywhere. I am lucky that my house is elevated so the water doesn't come in but most of the houses are submerged during these times and this makes me angry.
   When I filled in the land, I was really determined because I thought that our life was going to be better. But now, life is not easy again so when it is raining, we sit and watch as the water rises and waited for what is going to happen next.

CULTURE

10. Land is everything for the people of Kiribati. Before, people would fight for land and sometimes used black magic.
    The sea gives life, it provides food from the fish.
    When I was much younger before I got married, there was this one time that I got chased

    I also know about traditional medicine and massages, but I haven't pass them on to my children because they are not interested.
    For traditional medicine, I mainly use pandanus plants which can be found easily. I only use them within the family.

FOOD and HEALTH

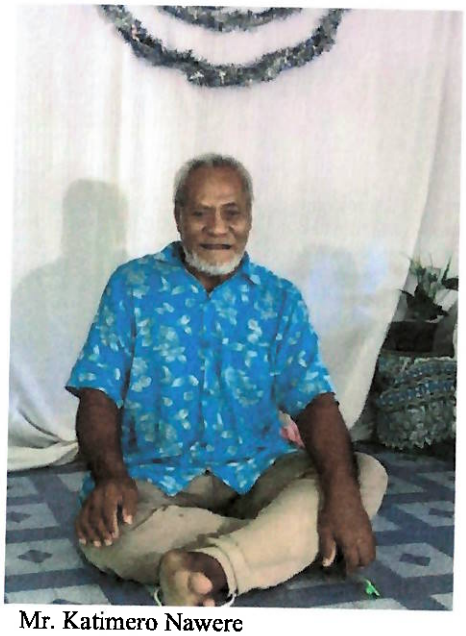
11. When I was young, we ate traditional food like pandanus fruits, coconuts, breadfruits, fish, taro, tebero.
    Now, I am eating rice, fish. If there is no fish, we use traditional syrup 'kamwaimwa' to give test to the rice.

12. I just have been tested with diabetes level 18 and hypertension.

FUTURE

13. For the future, I wish our community will be protected from overflow and the sea level rise.

14. If we can't do anything, I hope there is a chance to move to another land.



Mr. Katimero Nawere

Signature Interviewee: Katimero Nawere

Katimero Nawere

Signature Witness: Kiribati State Attorney
Benateta Atanteora

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

08 – Statement of Joseph Charles, Temaiku village, South Tarawa

25th February 2024

1. My name is Joseph Charles[1], and I am a national of the Republic of Kiribati. I was born on the 27th February 1993 and I am 30 years.

2. The declarations of fact made in this Statement are based on my direct knowledge of the facts stated.

3. I was born in Betio, South Tarawa, grew up here in Temaiku, went back to Betio for a few years and I moved here again permanently in 2015 to live with my grandmother because I love her. She has passed away now but I decided to stay here.
   I grew up with my grandmother from my mother's side because my parents were both in New Zealand. I am very attached to her.
   My grandma taught me the traditional values; an example is about visitors, to make sure visitors are welcomed when they come in our house and also know how to behave when you are a visitor in someone else's house.

4. I am working through the Pacific Labor Scheme. I first went in New Zealand last year for 9 months, I came back in November and I am now ready to go again. I am leaving tomorrow.

RELOCATION AND EXTREME WEATHER EVENT

5. In 2003-4, we used to live on Temaiku ocean side when we have been hit by a high tide and the community has to relocate. Now, this place is a beach. I was 10 years at that time but I remember very well that we couldn't find a place to sleep, the small houses were washed away and everything was flooding. I was scared and worried.
   In the area, you had a road and a sea wall which have both been broken by the water, you can still see the ruins of the old houses.

[1] See photo 1 of Joseph Charles

6. We settled in a place near the primary school but one or two years later, we had to move again on the request of the government, and we came to this place. We felt safe when we moved.

7. I was in secondary school when the land has been filled with sand. The change is really good because there is more space for the houses.

8. When it was flooding, around 2016-17 and again in 2019, we were worried of being shocked by some electric wires and the pigs were all swimming to try to find a place for shelter.
   In 2021, we had a State of disaster for drought. Due to the heat our cabbages shriveled and stopped growing. Water tanks would be empty, and we would buy water from the Public Utilities Board and they would deliver it, filling the tanks.

TRADITIONAL KNOWLEDGE

9. I believe that both my traditional knowledge and the church knowledge are important.
   My grandma taught me mainly about hospitality.

10. I don't know stories, dances or other traditions although I would like to know about it, especially on the construction of local houses as I have studied carpentry.

FUTURE

1. When I think about the future, I hope everything will be settled and we won't face more danger.

2. **We are ready to face the danger because we have experienced it in the past. We are prepared.**

Signature Interviewee: Joseph Charles

Signature Witness: Kiribati State Attorney
Benateta Atanteora

Joseph Charles

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

09 – Statement of Dr Alfred Tonganibeia, Office in Charge (OIC) of Public Health

23rd February 2024

1. My name is Dr. Alfred Tonganibeia and I'm currently the officer in charge for public health. I've been involved in public health field for the last 10 years, mainly in communicable disease, but also touching on non-communicable diseases and others. I've also been involved in hospital services as deputy director, which is my current role at the moment jointly with being the OIC for public health.

2. My mandate is around elevating the health for all and achieving good health for everyone in Kiribati. We want to make sure that everyone is living a healthy life through the multiple strategies in place.

3. Our biggest concern at the moment is the unhealthy lifestyle and the impact of climate change to the people of Kiribati. A lot of people are being devastated with unhealthy activities, lots of risk factors involved, including climate change impact.

NON-COMMUNICABLE DISEASES

4. **NCDs are huge burden to the country. It contributes to 70% of the total mortality based on the recent reports[1]. There are factors associated with that, especially consuming unhealthy foods, and high reliance on imported foods that contains unhealthy poor nutrition contents**, high in salt and sugar and high in fats. We also have other risk factors that contributed to this: people are high smoking rates, lack of physical activities.

5. There is an increasing number of NCDs related diseases and even death over the last 10 years. **We are one of the few remaining countries in the Pacific, about three remaining countries in the Pacific that hasn't met the millennial development goals**.

[1] See Kiribati annual health bulletin

6. **The diabetes prevalence is around more than 20%,** that's really high. A quarter of the population has diabetes, so that's a significant portion. If you look at the data for diabetes, it's more prevalent among females than men and when you look at the mortality data, also more females die from diabetes compared to men.

7. Considering our situation, our geographical challenges, climate change with high salinity, waves, heat and stress contribute to the increase of NCDs. That's only an observation coming from my experience.

8. **We are not able to grow or cultivate fresh vegetables. Instead of that, people are relying on imported foods**. Climate change is there, really, it's just exacerbating the effect of sugar consumptions with high obesity rate for instance.

   How can we grow vegetables or fruits? If the water is high, there's sea water intrusion everywhere so nothing can't really grow much. This pushes people to access unhealthy diets.

   We are engaging in several strategies to fight against NCDs in our programs. It's a challenging activity with multiple levels addressed: prevention, screening in communities, treatment all over Kiribati.

9. We have beautiful policies in place but one of the issues is the lack of enforcement. The challenges are our limited resources and geographical distribution of the islands. From one group of islands to the other extreme group, you have more than a week by boat, almost two weeks, and four hours on direct flights.

CHILDREN'S HEALTH

10. **One of the major concerns for children's health is malnutrition. Kiribati has one of the highest rates of malnutrition in the region, and again, it all comes down to poor nutrition. Children are being fed suboptimal diets**. We can't grow many vegetables; we can't do much. Instead, access to a unhealthy food is very easy.

11. Under five mortality rate is one of the highest in the Pacific, I think we are 10 times higher than New Zealand and Australia. Malnutrition contributes a lot to this mortality rate.

12. We have a program going on at the moment to improve the health of children. We are targeting specifically the nutrition aspect by providing nutritional packages to prevent malnutrition.

WATER

13. **The quality of water in Kiribati is very poor because of this narrow strip of land where we are situated. In time of droughts, we see an increasing number of diarrhea and skin infections. The same is happening with heavy rainfall.** We are trying to mitigate this by reiterating the importance of boiling the water but this is not enough.
    For Tarawa, the construction of the desalinization equipment will allow us to be safe for the next 30 years but what about the outer islands?

MENTAL HEALTH

14. Based on my observation, I have seen an increased number of severe mental health disorders in recent years. Some people have lost their homes, they have lost their land, they had to move out somewhere, and it creates that psychological effect on these individuals. Relocations and recent king tides, recent extreme weather patterns over the years have also caused a lot of significant impact to these families, especially those living on the shore.

CLOSING

15. **We need to carry out more research to understand and find the best way to adapt ourselves.** Thank you.

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

10 – Statement of Mr. Ueneta Toorua, Director for Kiribati Meteorological Service (MET)

23rd February 2024

1. I joined this Ministry in 2007 and became Director in 2014. Prior to my directorship I led observation and forecasting.

2. MET was established with support from New Zealand's Meteorological Service to collect data and provide for analysis, initially for the aviation sector. Around 1989, MET localized and for the first time started weather-related services and data generation for Kiribati itself.

3. In terms of climate change, the information we collect daily is important for forming the basis of evidence on whether and how the climate is changing. Indeed, the data collected has been very useful for planning protections based on actual weather.

4. No one can deny the fact that the weather and climate is changing. Over the course of my career at MET, there have been a lot of events, including extreme events, that were once rare to observe now affecting our people more frequently. The most recent extreme event involved extreme waves and swells that affected one of the more isolated islands Tabuaeran. Basically, the main source of the waves originated much farther south. The system lingered and generated waves from the Cook Islands all the way to us. This wave inundation damaged family properties and became a serious event that was difficult to have predicted considering the waves reached so far.

5. The main issue for atoll islands like Kiribati is the waves and king tides. MET is meant to provide warnings for waves that are likely to cause disasters like the one mentioned. But is seems the impact of sea-level rise for low lying islands causes what would otherwise be considered a normal tide to be one capable of disaster; and this scenario is becoming more frequent.

6. What is normal, can no longer be termed 'normal'. Now, we are starting to categorize what was once considered 'normal' as an extreme. People on island are not used to this. When you ask people what the most fun day on the island is, they would respond: high tide. Now, we must prepare for it. Since my work here, we have had to start developing a special warning product to identify the threshold of what is determined 'extreme' and the wave height expected from there. It's a challenge and must face this on more or less a daily basis.

7. As a scientist, I think it is also very important in climate impact discussions, for people to have an understanding of the climate system before the impact. Climate and weather are not standard. It is dynamic. There are a lot of interrelations between the ocean, atmosphere,

and land. During the awareness program, people do not differentiate interannual change or long-term impact. This becomes important when we see extreme events. Observations are fact within lifetimes.

8. Kiribati has specific challenges when it comes to climate change: sea-level rise, extreme waves, drought, disasters, SST, and how all of these things interact with ENSO. These are in line with the IPCC projections for Kiribati. It is a growing reality for all small island development states.

9. Another aspect that non-SIDS often do not understand is that communication with outer islands is extremely challenging. There is no mobile network, no electricity, etc. It is not like in other countries with early warning systems. Our equipment is limited, and we have to go with what we are provided meaning the accuracy and reliability of the data won't cover all of the islands. Instead, we have to rely on satellite data and the forecast is a guess. Global models do not translate for local, very small islands.

10. The MET service is not a business. We provide it for free. Since people look to us for safety from weather and climate, we need sufficient funding and innovative investment. People in more developed countries have comprehensive reporting and forecasting with advanced tools, radars, and large amounts of data (and they can still get it wrong!), but that is not the case for Kiribati. The tools and facilities are not as advanced and it seems like for SIDS, many of us struggle to maintain minimum budgets and improve the facilities and tech we already have let alone operate.

11. Climate change is a national issue and MET is the monitor. We don't want to get it wrong.

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

11 – Statement of Ruita Teiabauri, Officer in Charge for Kiribati Lands Division, Ministry of the Environment, Lands, and Agricultural Development (MELAD)

23rd February 2024

1. This Division is one of Kiribati's oldest, established in 1979 when Kiribati became independent. I have held this role since 2016. I joined the Ministry in 2010 as the Senior Land Management Officer, then Chief Land Management Officer, and now this role.

2. Our mandate is to look after all the government leases on South Tarawa, the outer islands, and any state land. We also deal with land disputes where landowners settle in court and once we receive the official judgment from the courts, this Division enforces it. There is a long wait for cases like this.

3. Lands reports are via the GIS unit that looks after all the data, land size, and tracks changes over time. Another department is the Lands Information System that stores all the names of landowners in Kiribati.

4. Land ownership in Kiribati is governed via the transfer of land titles handled by the courts. This includes all the purchasing of land and its proper ownership. The judgments are kept in a database that we share with the court; the minutes form the High Court are especially important in the settlement of land disputes.

5. As regards climate change, our division updates the general land use plan and looks into effects of climate change, especially near the shores. We work with the Ministry of Internal Affairs and update this plan according to the changes our surveyors find. When coastal erosion happens and people lose part of their lands, it is a difficult process for them, particularly if they encroach on other's lands or on government lands. In Kiribati, land is precious as it is limited.

6. For government-leased land, Kiribati makes over AUD$8 million, not including land use in the outer islands. This income stream is significant for the government as it also provides subleases via MELAD.

7. The most pressing concern for my Division when it comes to climate change is that coastal erosion exacerbates the scarcity of land on atolls. The government has provided incentives to landowners via a 100% rate increase from 2021 to 2024. That is a massive increase so that landowners will want to give their land over to the government as land is so limited. We need to find space for investment and commercial buildings.

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

12 – Statement of Mr. Kiaitonga Burera, Tebunginako Community, Abaiang

24 February 2024

BACKGROUND

1. My name is Kiaitonga Burera and I am 73 years old, born here in Abaiang in 1951. I speak only Kiribati language.

2. My village—where I was born and raised—is now underwater. It no longer exists as I remember it. My family has always lived in this area, my parents, their parents, as far as we can remember.

3. I have seven total children, four who were born and raised before the village moved, and three that came after the move. My eldest son was nine when we had to relocate and he does not remember the original village, and that saddens me.

4. My work is with coconuts to provide food and materials for the village.

SENSE OF PLACE

5. In the past, before the first move in 1991, the village was big. All that is now underwater. Even the buildings. In the past, the wind and the waves went onto the land and destroyed the land and made the water salty. Once the water is salty, plants no longer grow. The women needed to come in further and further to fetch freshwater that was not salted. But we did this because everyone wanted to prevent relocation. We wanted to stay.

6. In the past, there was strong system for the village, with one leader for the village, and our church to also manage the village. Now, it's the same, but disjointed. When speaking of family, ***'Te kainga'*** refers to the family. There a different system within the family, imagine that it is like the one decision maker for the family, on food sourcing, etc. As an elder, that is my job now.

7. My people are known for (laughingly) people good at eating. That was before, now this island is well known as an island effected by climate change. We did not want that identity.

8. Regarding how my village survived previously to now is quite different. When they were staying there their original place, it was rich, lots of plants, water is fresh, and people could easily get food from the land and sea. Now, it is quite difficult. Salt in water, there is even a place where we live now where the sea still comes into the land.

9. Coconut is the most important plant to my village, especially after the moves. We used to be able to grow *bwabwai* (dalo***)*** papaya, breadfruit, etc. but when the water became salty those fruits and vegetables died and we could not get them to grow back.

10. Let me describe the previous land—there was a large land with a lot of plantations, a maneaba, church, houses, clean water, a paradise. There were more than 40 households. When the big storm came on the land, the first thing that was affected was the water. All the plants died. We also had the bwabwai plantation and it was affected by the big waves. When the storm came it stayed for more than three days, but we realized we needed to move afterwards. Because of the salty water and the currents found a way to go through the land. Most of the community members relied on the copra from the coconut tree and after the storm they could not.

CULTURE & TRADITIONAL KNOWLEDGE

11. People of Abaiang, including my village are connected to the sea and to the land. Imagine that in the past, in the old place, it was a big community with big land. Now since we relocated, we are scattered. Broken. In the past, all this was in the vast place. There was a bond between us because they live closely, now it is not the same. Now we all live far apart.

12. There is a well-known story about the pretty lady from the highlands that represents *Nuotaea* and *Tearintarawa*. All the boys from the islands come over. Imagine the beauty. That story originated because this island is so desirable. My original village was beautiful like this.

13. In the past, imagine that all the people tell the stories and pass the skills to children and grandchildren. It is passed as oral tradition. Also, there is a subject in the schools that gets taught, but it is not the same as learning from your grandparents. In the past, traditional skills were encouraged, now there is a change with new generations.

14. For our village, the main resource is the coconut tree. It is symbolic of true—what you all say— 'sustainability'. Imagine that most families in the village protect the tree and try to cultivate it in order for it to produce more. And that every part of it is used. Not one part goes to waste.

FOOD

15. There is a big difference in customs around food from before to now. In the past, getting the food from the lagoon was easy. Now, the village boys are quite far from the sea compared to how it was when I was their age, and they have to walk a longer way to get the food (because of the tides and mangroves). There's a group of boys that fish (local fish) called *Mautauri.* That group used to go out and sell it out but if there are remaining fish not sold, it is given to the community. Because of the tides and the mangroves, we must go around instead of being right on the sea.

CHANGING ENVIRONMENT

16. In the past, when we first moved, it was so hard. Me and my family missed our previous life. Our land. The first move was about 1991. Now, much of the community forgets. The life for my grandchildren is different from my life at their age.

17. In the past, there was no term of climate change. It is only called *Ang Maea*o meaning ‘a wind from the east’. It is hard to describe. Comparing the life with the children prior, it was an easier life and now it is full of struggle.

CLOSING

18. I wish to end with an inquiry if we can get better support from the international people in this climate case. All of the people of Abaiang, they need it.

Signature Interviewee: Kiaitonga Burera

Signature Witness: Aretaake Ientaake- Director of Human Rights (Ministry of Justice)

Kiaitonga Burera overlooking debris at site of his old village that is now underwater due to sea-level rise and coastal erosion.

Obligations of States in Respect to Climate Change
(Request for Advisory Opinion)

13- Statement of Mr. Choi Yeeting, Director-Climate Change & Disaster Risk Management, Office of Te Beretitenti (OB)

2nd March 2024

1. My name is Choi Yeeting, I have a background in environmental science and have been involved in the work on adaptation, mitigation, resilience and disaster risk reduction for over 10 years now.

2. I currently sit as the Director for Climate Change and Disaster Risk Management within the Office of Te Beretitenti. Our mandate is to coordinate nationally and sub-nationally the implementation of climate change and disaster management projects and programmes in Kiribati. The other mandate is to provide technical advice which would inform policy development which are interlinked with climate adaptation, mitigation and resilience.

3. The major objectives we have as the OB-CCDRM Unit is to see that the implementation of CCA, Mitigation and Resilience efforts are coordinated through the existing policy instruments and in line with the CCDRM Act. We serve as the KNEG Secretariat which provides technical guidance, policy advice, monitoring and evaluation in line with our multi-stakeholder mechanism in place to support climate change actions across Government and with NGOs and CSOs in Kiribati.

4. Each sector and Ministry have their own strategic plans and policy goals. Ours involves the coordination across using a multi-stakeholder, multi-sectoral approach the progressive and strategic implementation of climate change adaptation, mitigation, resilience, and disaster risk management.

5. Financing, technical capacities, institutional capacities and the absorption capacity within our national systems to be able to progressively implement projects and programmes.

6. It is a matter of urgency now to ensure swift and strategic implementation of the current objectives in place. Our actions are now timebound in terms of trying to ensure the security and safety of our communities and their livelihoods.

7. That is our core priority, however we are mindful that this requires a whole of government, whole of country approach in ensuring that “all hands-on deck” is applicable to the adaptation needs and resilience development of our country and people.

8. The NDRMP 2012 was developed to ensure that the coordination of disaster related actions had an operational plan in place, roles and responsibilities of sectors involved in disaster management were clarified.

9. It all comes down to resourcing (financial) and ensuring that each respective stakeholder understands their roles within the disaster plan. With limited human resources (Staff) this also poses a challenge in ensuring that preparedness, response and recovery are evenly applicable. The other dimension to this challenge is the awareness of our communities and islands council stakeholders in operationalising or putting into action the disaster plan during cases of states of emergencies. Currently the response time when certain actions are required is still very slow.

10. TC PAM 2015 – Tamana and Arorae were the most highly affected islands as a result of the energy projected from TC Pam which was passing within the Pacific region at the time.

11. Drought – State of Emergency June 2022 – December 2023 – Prolonged Drought like conditions saw the declaration of the state of emergency with water shortage noticeable across Kiribati.

12. We work closely with the Island Council and the established Island Disaster Committees to ensure that the current plan of action is applied and coordinated. The OB's roles is to coordinate nationally disaster response either through mobilising funds to the affected islands through the existing formal streams or through the coordination of humanitarian support based on the Situation reports assessed. In terms of relocation, we have only had cases of relocation further in-land critically affected communities and people. This is temporary and can return to their land and houses once the emergency is deemed to have ended. The OB then deploys assistance and support to the affected households. One of the existing mandates we have under the CCDRM Act is that when emergency events requiring relocation are earmarked, the local Maneaba's (traditional meeting house) are used as temporary relocation centers. The challenges to support the population who are relocated are effective deployment of humanitarian and technical assistance post events.

13. The KV20 sets a medium to long term for sustainable development in line with Governments manifesto in support of people's needs and that of the country. Each action is now timebound and requires shorter plans which require shorter implementation outcomes/outputs. Urgency in addressing climate change impacts requires us to look at the vision in more timebound manner and with shorter timeframes to deliver on concrete resilient development actions.

14. Achieving economic prosperity is a difficult task to do, however noting the timebound nature of delivering resilient development outcomes and ensuring a resilient population for times to come, the economic dimension of sustainable development become more fragile and vulnerable. The Government looks at partnerships to support these efforts to bridge

gaps where the Government is not able to support in terms of ensuring economic resilience in the face of climate change impacts.

15. With the constant threat and vulnerability of communities and people, resources are becoming more stretched in terms of the support that is provided, either by Government or through projects and programmes.

16. There are two dimensions to this: the case of South Tarawa and that of the outer-islands. South Tarawa will face additional health risks and climate change impacts will be more noticeable as result of contributing factors such as over population, poor land use and land planning, waste management, lack of land space, over harvesting and over-use of natural resources (e.g water, sediments, coastal fisheries). On the other hand, the outer-islands do not face these problems but the issue is remoteness, lack of basic services. Climate Change will exacerbate the existing impacts for South Tarawa and the outer-island but each at a different pace. In terms of leading a health environment, the priority should be focused on South Tarawa which has access to Government resources and officers, but which requires urgent attention to alleviate the existing pressures being noticed which will only become worse as climate impacts (SLR and Temperature increase) will be more frequent and severe in the coming years.