INTER-AMERICAN COURT OF HUMAN RIGHTS

Amicus Curiae Brief

On the Issues in the Request for an Advisory Opinion on the Climate Emergency and Human Rights

Submitted by the Republic of Colombia and the Republic of Chile

Presented by

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I. Introduction & Interest of Amicus

1. On 9 January 2023, the Republic of Colombia and the Republic of Chile submitted a request for an advisory opinion to the Inter-American Court of Human Rights (IACtHR; the Court).
2. The request on 'The Climate Emergency and Human Rights' seeks clarification from this Court on, *inter alia*, "the scope of State obligations, in their individual and collective dimension, in order to respond to the climate emergency within the framework of international human rights law, paying special attention to the differentiated impacts of this emergency on individuals from diverse regions and population groups, as well as on nature and on human survival on our planet."[1]
3. ClientEarth hereby respectfully submits this *amicus curiae* brief to the Court. ClientEarth is an international environmental law organisation, with offices in London, Berlin, Brussels, Beijing, Los Angeles, Luxembourg, Madrid, Tokyo and Warsaw. We use the law to meet the environmental challenges Earth is facing: rising carbon emissions and the acceleration of climate change; disappearing forests; pollution of the air we breathe and of the ocean; biodiversity collapse; and the adverse effects of all the above, which are disproportionately felt by the most vulnerable communities around the world.
4. Of particular relevance to this case, ClientEarth possesses in-depth experience and expertise in international environmental and human rights law, including on climate change and State obligations. ClientEarth has observer status to the United Nations Framework Convention on Climate Change and has participated in Conferences of the Parties of both the UNFCCC and the Convention on Biological Diversity and supported or led legal interventions in national and international courts and tribunals.[2]
5. This submission covers important aspects of climate science relevant to the legal questions before this Court. In particular this submission covers aspects of climate science related to State obligations such as the duty to prevent, the duty to minimise and mitigate climate harms and activities under its jurisdiction that exacerbate such harms. This submission specifically addresses the following:
   a) Certain key conclusions of the international scientific consensus on climate change, evidencing: (i) the need for rapid reductions in greenhouse gas emissions; (ii) the irrefutable climate impacts on human life and well-being, and (iii) the need for a fossil fuel phase-out (Section II below).
   b) The obligations of States under international human rights law (Section III below).

[1] Request for an Advisory Opinion on the Climate Emergency and Human Rights submitted to the IACtHR by the Republic of Colombia and the Republic of Chile (9 January 2023), available at: https://www.corteidh.or.cr/docs/opiniones/soc_1_2023_en.pdf.
[2] See for example: European Court of Human Rights (ECtHR), *Greenpeace Nordic and Others v Norway,* application no. 34068/21, Third Party Intervention submitted by ClientEarth (May 2022), available at: clientearth-third-party-intervention-amicus-in-greenpeace-nordic-and-others-v-norway-3-5-2022.pdf.

c) The practical implications and considerations informing State obligations (Section IV below).

II. The Scientific Evidence

A. The Scientific Process and Temperature Pathways

6. Climate change is understood as the "change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere" beyond the "natural climate variability observed over comparable time periods."[3]
7. Climate change is directly linked to the increase in the concentration of greenhouse gases (GHGs) in the atmosphere, including from the burning of fossil fuels. This accumulation of GHGs in the atmosphere traps "more of the Sun's energy in the Earth system," thereby causing an increase in Earth's global mean temperature, also known as global warming.[4]
8. This warming of the atmosphere, ocean and land has and will continue to result in fundamental, widespread and rapid changes in the atmosphere, ocean, cryosphere, and biosphere, impacting climate and weather patterns, including increases in extreme weather events, sea-level rise and ocean acidification.[5]
9. Beyond these effects on the natural world, the enjoyment and realisation of all human rights is profoundly impacted and curtailed by the climate crisis. These observed impacts of the climate crisis are underpinned by an extensive body of scientific evidence.

The Scientific Process

10. Reports by the Intergovernmental Panel on Climate Change (IPCC) form the basis for much of the global action on climate change, including the legal framework.[6]
11. The IPCC is the United Nations (UN) body tasked with assessing the science on climate change with the aim of informing governments and introducing scientific knowledge into policy development.[7] The experts of the IPCC do not conduct their own research, but evaluate existing research by scientists and researchers worldwide. The IPCC systematically reviews and assesses thousands of scientific papers published every year, creating an extensive overview of the findings of the global scientific community.[8]

[3] UNFCCC, art. 1(2).
[4] NASA, "Evidence", available at: https://climate.nasa.gov/evidence/.
[5] *Ibid.*
[6] IPCC, "About: Structure of the IPCC", available at: https://www.ipcc.ch/about/structure/.
[7] IPCC, "About the IPCC", available at: https://www.ipcc.ch/about/.
[8] *Ibid.*

12. The IPCC's draft reports are shared with governments for their review. Thereby, the final reports do not only present the consensus of the scientific community but also that of the 195 participating States.[9]
13. Beginning in 1990, the IPCC has periodically published assessment reports on the science of climate change and possible mitigation and adaptation pathways. Each assessment report is comprised of three parts by separate working groups, as well as a synthesis report.[10] By way of example, the drafting of the IPCC's Sixth Assessment Report, its most recent, involved a team of 231 lead authors, 39 reviewing authors and 675 contributing authors.[11] The draft was subject to formal review and revision as well as government comments. Additionally, 62,418 review comments from over 1,600 individual expert reviewers were submitted for consideration.[12] The Summary for Policymakers, which is added to each Assessment Report, was approved line by line.[13]
14. No doubt can thus exist as to the thoroughness or the validity of the IPCC's findings and scientific conclusions. What should and must however be remembered is that the lengthy and thorough review process, combined with the consensus-based approach, means that some of the conclusions can be based on scientific data from several years ago and that projections may therefore not reflect the most recent/extreme findings on the adverse impacts of climate change.[14]
15. The IPCC categorises its findings by reference to levels of confidence (very low, low, medium, high and very high).[15] The stronger the evidence and the higher the agreement in the scientific community, the higher the level of confidence is.[16] This is achieved through appraisal of the quality and consistency of the presented evidence.[17] The IPCC also

[9] Commission of Small Island States on Climate Change and International Law (COSIS), Statement at the oral proceedings before the International Tribunal for the Law of the Sea (ITLOS) concerning the Request for an Advisory Opinion on Climate Change and International Law (COSIS Oral Statement), public sitting held on Tuesday, 12 September 2023, at 10 a.m., ITLOS/PV.23/C31/3, p. 26, ln. 33-36, available at: https://www.itlos.org/fileadmin/itlos/documents/cases/31/Oral_proceedings/ITLOS_PV23_C31_3_E.pdf.
[10] IPCC, "IPCC Factsheet – What is the IPCC", available at: https://www.ipcc.ch/site/assets/uploads/2021/07/AR6_FS_What_is_IPCC.pdf.
[11] IPCC, 2022*: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC AR6 WGII Full Report) [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 University Press, Cambridge, UK and New York, NY, USA, Preface, p. ix-x, available at: https://report.ipcc.ch/ar6/wg2/IPCC_AR6_WGII_FullReport.pdf.
[12] *Ibid*, Preface, p. x.
[13] *Ibid*.
[14] COSIS Oral Statement (n9), p. 29, ln. 4-9; International Union for Conservation of Nature and Natural Resources - World Commission on Environmental Law, Ocean Law Specialist Group, written statement on the Request for Advisory Opinion submitted to the Tribunal, 23 June 2023, paras. 81, 158, available at: https://www.itlos.org/fileadmin/itlos/documents/cases/31/written_statements/2/C31-WS-2-2-IUCN.pdf.
[15] IPCC, "Technical Summary" (IPCC AR6 WGII TS), in IPCC AR6 WGII Full Report (n11), p. 41, available at: https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_TechnicalSummary.pdf.
[16] *Ibid*.
[17] *Ibid*.

evaluates the likelihood of these findings,[18] categorising these from exceptionally unlikely (0-1%) to virtually certain (99-100%).[19]

Temperature Pathways

16. Through the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement – discussed in more detail below – States have committed to the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."[20] The Paris Agreement encapsulates the global agreement that this objective entails: "[h]olding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change."[21]
17. 1.5°C thus represents a politically agreed-on limit, legally enshrined in the Paris Agreement, to reduce the most severe risks of the climate crisis, albeit recognising that harms will occur below even 1.5°C. The scientific reports of the IPCC are structured to reflect 1.5°C or 2°C reduction pathways.[22] As the IPCC's Special Report on Global Warming of 1.5°C has made abundantly clear, the difference in negative impacts between these two temperature limits is significant.[23]
18. As will be shown in the following sections, "dangerous anthropogenic interference with the climate system," human life and well-being is already occurring at current warming levels. In 2022, the average global mean surface temperature was about 1.15°C above pre-industrial levels.[24] It is our submission that as a necessary consequence of the current harms to human life and well-being, international human rights law (IHRL) obliges States to take urgent action to reduce climate harms, as all levels of warming entail severe infringements to the full realisation and enjoyment of human rights.

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[18] *Ibid.*
[19] *Ibid.*
[20] UNFCCC, art. 2.
[21] Paris Agreement, art. 2(1)(a).
[22] Decision 1/CP.21, Adoption of the Paris Agreement, FCCC/CP/2015/10/Add.1 (29 January 2016), para. 21, available at: https://unfccc.int/process-and-meetings/conferences/past-conferences/paris-climate-change-conference-november-2015/cop-21/cop-21-decisions.
[23] IPCC, "Summary for Policymakers" (IPCC SR 1.5°C SPM), in: IPCC, 2018: *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* (IPCC SR15) [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, para. B.1, available at: https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SPM_version_report_LR.pdf; Glasgow Climate Pact, FCCC/PA/CMA/2021/L.16 (13 November 2021), para. 21, available at: https://unfccc.int/sites/default/files/resource/cma2021_L16_adv.pdf.
[24] World Meteorological Organization, "Global temperatures set to reach new records in next five years" (17 May 2023), available at: https://public.wmo.int/en/media/press-release/global-temperatures-set-reach-new-records-next-five-years.

19. The following five aspects of the science on climate change are essential to understanding the scale of the climate crisis and the urgency to act and will be addressed in turn: the warming effect of GHG emissions is cumulative; the risk of tipping points; the long-lasting, unavoidable and irreversible impacts; the significant lag effect between emissions and adverse impacts; the need for a 'whole systems' approach to emissions reduction. These also underline the foreseeability of the adverse impacts already occurring and continuing to occur. We submit that these aspects are key to the Court's assessment of the obligations on States and the associated obligation to rapidly reduce GHGs.
20. Measures to reduce GHGs are commonly referred to as "mitigation" measures, while measures to adapt to and reduce the impacts of the climate crisis are commonly referred to as "adaptation" measures. This submission focuses on mitigation; however it must be emphasised that adaptation forms an essential part of States' obligations as they relate to the climate crisis, and adaptation and mitigation measures are complementary, not substitutes. Only with the required emissions reductions will the scale of required adaptation be manageable and even then, there will be impacts to which it may not be possible to adapt.[25]

B. The Scientific Evidence Establishes the Clear Need for Rapid Reductions in Greenhouse Gases

21. The warming effect of GHG emissions is cumulative. Emissions accumulate and persist in the atmosphere for periods of up to thousands of years.[26] Their warming effect is thus also cumulative, rather than the result of the volume of annual global emissions.[27] A fundamental requirement for limiting global temperature increase is therefore balancing GHG emissions against GHG removals, for example through their absorption by the ocean and forests. This balancing is known as 'net zero' CO_2 emissions.[28] As explained by the IPCC, "[f]rom a physical science perspective, limiting human-caused global warming to a specific level requires limiting cumulative CO2 emissions, reaching at least net zero emissions, along with strong reductions in other greenhouse gas emissions" (high confidence). To this end "[r]eaching net zero GHG emissions primarily requires deep reduction in CO2, methane and other GHG emissions, and implies net negative CO2

[25] ECtHR, *Verein Klimaseniorinnen Schweiz and Others v Switzerland*, application no. 53600/20, Third Party Intervention submitted by ClientEarth (June 2023) (ClientEarth *Klimaseniorinnen* Third Party Intervention), para. 6, available at: https://www.clientearth.org/media/w2ol2145/blue-crane-tpi-021222-as-sent.pdf.
[26] IPCC SR 1.5 (n23), p. 64, availabe at: https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Full_Report_LR.pdf; ClientEarth *Klimaseniorinnen* Third Party Intervention (n25), para. 12.
[27] *Klimaseniorinnen* Third Party Intervention (n25), para. 12.
[28] UN, "For a livable climate: Net-zero commitments must be backed by credible action", available at: https://www.un.org/en/climatechange/net-zero-coalition.

emissions" (high confidence).[29] The urgency of such reduction is underscored by the current very high rate of cumulative CO_2 emissions: 42% of all CO_2 emissions since 1850 were emitted in the last three decades.[30] Limiting the level of global temperature rise requires considering the permissible remaining scope to emit GHG emissions, i.e. a finite 'global carbon budget', bearing in mind their cumulative effect.[31] The estimated carbon budget for (even) a 50% chance at limiting average warming to 1.5°C has been nearly exhausted and is dwindling rapidly – between 2020 and 2023 it went from 500 $GtCO_2$ to 250 $GtCO_2$.[32]

22. The risk of tipping points. The level at which climate change is currently progressing risks triggering 'tipping points' and increases with further global warming (high confidence).[33] These are critical thresholds, beyond which "a system reorganizes, often abruptly and/or irreversibly."[34] Examples include the collapse of ice sheets, dieback of the Amazon forest – that is a level of deforestation and/or warming reached beyond which the capacity of a forest to produce ecosystem services is severely reduced and the ecosystem will alter on its own, irrespective of whether deforestation or warming slowed down or stopped – causing stronger El Niño weather patterns, and the capacity of forests and the ocean to absorb carbon.[35] The IPCC has made clear that "even a return to pre-threshold surface temperatures or to atmospheric carbon dioxide concentrations does not guarantee that the tipping elements return to their pre-threshold state."[36] Significant risks are associated with exceeding temperatures of more than 1.5°C (also known as overshooting). To limit warming

[29] IPCC, "Summary for Policymakers" (IPCC AR6 SYR SPM), in: IPCC, 2023: *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, para. B.5.1, available at: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf.
[30] IPCC, "Summary for Policymakers" (IPCC AR6 WGIII SPM), in: IPCC, 2022: *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 , para. B.1.3, available at: https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_SummaryForPolicymakers.pdf.
[31] ClientEarth *Klimaseniorinnen* Third Party Intervention (n25), para. 15.
[32] Piers M. Forster et al, "Indicators of Global Climate Change 2022: annual update of large-scale indicators of the state of the climate system and human influence", in: Earth System Science Data (2023), vol. 15 no. 6, 2295, 2313 (table 7).
[33] IPCC AR6 SYR SPM (n29), para. B.3.2.
[34] IPCC, "Summary for Policymakers" (IPCC AR6 WGI SPM), in: IPCC, 2021, *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, para. B.5.2, fn. 34, available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf.
[35] IPCC SR 1.5°C Full Report (n23), Ch3, p. 263.
[36] IPCC, "Technical Summary" (IPCC AR6 WGI TS), in: IPCC, 2021. *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, p. 106, available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_TS.pdf.

to 1.5°C (>50%) with no or limited overshoot, rapid, deep and in most cases immediate GHG emissions are required.[37] Specifically, GHGs have to be reduced by at least 43% by 2030, 60% by 2035, 69% by 2040 and 84% by 2050 as compared to 2019 levels.[38] Overshooting 1.5°C "will result in irreversible adverse impacts on certain ecosystems with low resilience" (high confidence).[39] Recent research has indicated that warming beyond 1°C risks triggering tipping points and "significant" likelihood of those threats multiplying exists at higher mean global temperatures of 1.5°C and above, thus providing a strong basis for ambitious action to limit global warming as much as possible.[40]

23. Long-lasting, unavoidable and irreversible impacts. The IPCC has established that the likelihood of abrupt and irreversible impacts will increase with higher global temperatures (high confidence).[41] Further, "[a]s warming levels increase, so do the risks of species extinction or irreversible loss of biodiversity in ecosystems such as forests (medium confidence), coral reefs (very high confidence) and in Arctic regions (high confidence)."[42] Simultaneously, certain impacts such as sea level rise are unavoidable, as the deep ocean continues to warm and ice sheets continue to melt, leading to centuries or millennia of elevated sea levels (high confidence).[43] While some future changes and impacts are unavoidable and/or irreversible, it has also been established that these "can be limited by deep, rapid, and sustained global greenhouse gas emissions reduction" (high confidence).[44] "[I]mmediate and unprecedented" efforts to reduce global GHGs are thus required.[45]
24. The significant lag effect between emissions and impacts. Due to inertia in both geophysical and socio-economic systems, there is a delay between GHG emissions and the impacts felt. An example of geophysical system inertia includes slower rates of permafrost thaw, with the effects lagging behind emissions by decades.[46] Lags in relation

[37] IPCC AR6 SYR SPM (n29), para. B.6.
[38] *Ibid*, p. 21, table SPM.1. As discussed in COSIS Oral Statement (n9), p. 28, ln. 23-29.
[39] IPCC AR6 SYR SPM (n29), para. B.7.2.
[40] David I. Armstrong et al., "Exceeding 1.5°C could trigger multiple climate tipping points", Science 377, 1171 (2022), available at: https://www.science.org/doi/10.1126/science.abn7950 - F2.
[41] IPCC, "Longer Report" (IPCC AR6 SYR Longer Report): IPCC, 2023: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC AR6 SYR SPM) [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, para. 3.1.3, available at: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf.
[42] *Ibid*.
[43] *Ibid*.
[44] IPCC AR6 SYR SPM (n29), para. B.3.
[45] IPCC SR 1.5°C Full Report (n23), Ch3, p. 276.
[46] *Ibid*, Ch3, p. 271; ClientEarth *Klimaseniorinnen* Third Party Intervention (n25), para. 29; with further reference to: IPCC, 2021: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC AR6 WG1 Full Report) [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, Ch5, p. 775, FAQ 5.3, Figure 1, available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport_small.pdf.

to socio-economic systems refer to the length of time required to transition and decarbonise elements such as infrastructure or transport systems, deeply intertwined with the functioning of societies and economies.[47] Due to this lagging effect, the negative impacts of the climate crisis will continue to worsen, even if current levels of GHG emissions and CO_2 concentrations in the atmosphere remained the same. The IPCC has emphasised how "delaying GHG emissions reductions over the coming years also leads to economic and institutional lock-in into carbon-intensive infrastructure, that is, the continued investment in and use of carbon-intensive technologies that are difficult or costly to phase-out once deployed."[48] This can then result in low-carbon alternatives being 'locked out', or excluded.[49]

25. A 'whole systems' approach to emissions reduction is required. The IPCC has made clear that "[a]ll relevant companies, industries and stakeholders" need to be involved for a transition towards low emissions pathways to have a chance.[50] There are just 100 fossil fuel and cement companies (both investor and state-owned) which have produced 71% of all industrial GHG emissions between 1988 and 2017 – these have also been called the 'Carbon Majors.'[51] Consequently, it is (in)action by such companies which has a significant impact on whether agreed limits to average global temperature rise are respected and met. It is thus clear that business actors are indispensable to curbing the most severe impacts of the climate crisis. This transition includes political, social and cultural conditions relating to public awareness and acceptability of related changes.[52]
26. All these key scientific aspects underline the urgency of emissions reductions, as risks, impacts, losses and damages will "escalate" with every increment of warming (very high confidence).[53] Nonetheless, current policies around the world are projected to lead to global warming of 2.8°C or more.[54]
27. The following section will provide a brief overview of the scientific evidence as it relates to already occurring adverse impacts on human health and well-being. Failing to take urgent action will increase their severity dramatically.

[47] ClientEarth *Klimaseniorinnen* Third Party Intervention (n25), para. 28.
[48] IPCC SR 1.5°C Full Report (n23), Ch1, p. 126.
[49] *"The tendency for certain carbon-intensive technological systems to persist over time, 'locking out' lower-carbon alternatives, owing to a combination of linked technical, economic, and institutional factors"*: United Nations Environmental Programme (UNEP), "The Production Gap Report: 2020 Special Report", p. v, available at: https://productiongap.org/wp-content/uploads/2020/12/PGR2020_FullRprt_web.pdf.
[50] IPCC SR 1.5°C Full Report (n23), Ch4, p. 392.
[51] OHCHR, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, A/74/161 (15 July 2019) (A/74/161), para. 13, fn. 12.
[52] *Ibid*, para. 64.
[53] IPCC AR6 SYR SPM (n29), para. B.2.
[54] UNEP, "Emissions Gap Report 2022: The Closing Window", p. XVI, available at: https://www.unep.org/resources/emissions-gap-report-2022.

C. The Scientific Evidence Establishes a Clear Link Between Climate Change and the Adverse Impacts on Human Life and Well-Being

28. The IPCC has classified climate change as a "threat to human well being" (very high confidence).[55] The negative impacts detailed below occur at current levels of warming and will continue to intensify, as any increase in warming is "projected to affect human health, with primarily negative consequences (high confidence)."[56] To emphasise: the scientific evidence clearly establishes that "[e]very increment of global warming will intensify multiple and concurrent hazards (high confidence)."[57]
29. Adverse impacts on mortality, physical and mental health. Globally, climate change related extreme heat events have resulted in human mortality and morbidity (very high confidence). In the near- to long-term, climate change will drastically impact ill health and premature deaths (high confidence).[58] Climate change has also increased food- and water-borne diseases (very high confidence) and the incidence of vector-borne diseases (high confidence).[59] According to estimates by the World Health Organization, between 2030 and 2050, climate change will lead to around 250,000 additional deaths per year, "from undernutrition, malaria, diarrhoea and heat stress alone."[60]
30. Reduction in food and water security (high confidence). Food insecurity has increased, as climate-related shifts in temperature have affected the productivity of the agricultural, forestry and fishery sectors.[61] Particularly: "[i]ncreasing weather and climate extreme events have exposed millions of people to acute food insecurity and reduced water security." Central and South America are among the regions and/or locations for communities, including Indigenous Peoples, with the most significant impacts observed (high confidence).
31. At warming of 2°C or above, Central and South America are amongst the regions projected to experience more "frequent and/or severe agricultural and ecological droughts (medium to high confidence),"[62] directly impacting human livelihoods and associated human rights.
32. Climate migration will increase continuously (high confidence).[63] This is due to extreme and slow-onset climatic events, as well as the negative impacts on daily life illustrated

[55] IPCC AR6 SYR SPM (n29), para. C.1.
[56] IPCC SR 1.5°C SPM (n23), para. B.5.2.
[57] IPCC AR6 SYR SPM (n29), para. B.1.
[58] IPCC, "Summary for Policymakers" (IPCC AR6 WGII SPM), 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, paras. B.1.4. and B.4.4., available at: https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf.
[59] IPCC AR6 WGII TS (n15), p. 50-51.
[60] World Health Organization, "Climate Change" (12 October 2023), available at: https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health.
[61] IPCC AR6 WGII TS (n15), p. 48.
[62] IPCC AR6 WGI SPM (n34), para. C.2.2.
[63] IPCC AR6 WGII TS (n15), p. 52, 64.

above. In some instances, relocation of communities by governments, rather than 'voluntarily' is necessary to ensure the safety of individuals otherwise unable to relocate. This need is expected to grow.[64] Existing examples of relocated communities demonstrate the financial and emotional distress experienced as, for example, cultural and religious bonds to native homes and livelihoods are disrupted (high confidence).[65]

33. Extreme weather events are continuously driving displacement in Central and South America (medium confidence). Projections show that between 2020 and 2040, 35% more people in Central and South America will be exposed to sea-level rise. As Chile submitted in its oral statement during the recent advisory opinion proceedings before the International Tribunal for the Law of the Sea (ITLOS): "[c]onsidering that in Chile many human and natural systems are located within 10 metres above sea level, nearly one million people, about 5.5 per cent of our national population, could be potentially exposed to sea-level rise and tidal waves, and around 500,000 houses, that is 7.42 per cent of the national total, would be exposed to these threats."[66]
34. Climate Risks Have a Disproportionate Effect on Marginalised Groups (high confidence).[67] This includes, in particular, women and children from low-income households, Indigenous Peoples, and minority groups. Climate change is a "threat multiplier," as it compounds pre-existing social and economic issues and imbalances.[68] Observed mortality and losses due to floods, droughts and storms are greater in regions where such groups are marginalised on the basis of historical, political and socioeconomic inequities (high confidence).[69] Between 2010 and 2020, such climate hazards resulted in mortality rates 15 times higher in highly vulnerable regions (high confidence).[70]
35. Malnutrition and disease susceptibility are especially high amongst children, women, Indigenous Peoples and minority groups, as they make up the groups most affected by poverty, poor access to health systems and also face difficulties accessing healthy and varied foods, among other disadvantages.[71] Due to their still developing physiology and

[64] IPCC, 2019: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* (IPCC SROCC Full Report) [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, p. 666, availabe at: https://www.ipcc.ch/site/assets/uploads/sites/3/2022/03/SROCC_FullReport_FINAL.pdf.
[65] IPCC AR6 WGII TS (n15), p. 52
[66] Statement by Chile at the oral proceedings before the ITLOS concerning the Request for an Advisory Opinion on Climate Change and International Law, public sitting held on Thursday, 14 September 2023, at 10 a.m., ITLOS/PV.23/C31/7, p. 7, ln. 6-10, available at: https://www.itlos.org/fileadmin/itlos/documents/cases/31/Oral_proceedings/ITLOS_PV23_C31_7_E.pdf.
[67] IPCC AR6 WGII SPM (n58), para. B.2.
[68] IPCC AR6 WGII Full Report (n11), Ch2, p. 286.
[69] IPCC AR6 WGII TS (n15), p. 50.
[70] IPCC AR6 SYR SPM (n29), para. A.2.2.
[71] IPCC AR6 WGII Full Report (n11), Ch5, p. 792; Food and Agriculture Organization of the United Nations, "The State of Food Security and Nutrition in the World 2018. Building Climate Resilience for Food Security and Nutrition" (2018), p. 33, available at: https://docs.wfp.org/api/documents/WFP-0000074343/download/?_ga=2.77922643.678534021.1700057647-280394331.1700057645; Smith, L.C. & L.

metabolism, children are more vulnerable to malnutrition.[72] Indigenous Peoples, agricultural communities, women, children and members of minority groups currently experience greater negative impacts on their mental health (high confidence).[73]

36. Additionally, loss of ecosystems and their services particularly affects Indigenous Peoples and local communities, as many are directly dependent on ecosystems for their basic needs (high confidence).[74]

37. It is our submission that from the scientific evidence on the current impacts of the climate crisis on human life and well-being it follows that risks to internationally protected human rights emerge which entail obligations on States. In 2018, the IPCC found that: "[w]arming of 1.5°C is not considered 'safe' for most nations, communities, ecosystems and sectors and poses significant risks to natural and human systems as compared to the current warming of 1°C (high confidence)."[75] We conclude from this that States are under the obligation to prevent such risks and harms.

D. The Scientific Evidence Establishes a Clear Need for the Phasing Out of Fossil Fuels

38. Over the last decade, fossil fuels are estimated to have accounted for 86% of anthropogenic GHG emissions.[76] There is thus a clear causal relationship between the two. Fossil fuels have been defined as "the heart of the climate challenge,"[77] and a 2023 report found that in 2030 governments were planning to produce more than twice the amount of fossil fuels than would be consistent with even a 1.5°C pathway.[78]

39. The IPCC has determined that: "[t]here is a rapidly closing window of opportunity to secure a liveable and sustainable future for all (very high confidence)."[79] Substantial reductions in the overall use of fossil fuels are thus required.[80] The science provides that fossil fuel emissions have to decline by about 6% annually to comply with a 1.5°C-pathway.[81]

Haddad, "Reducing Child Undernutrition: Past Drivers and Priorities for the Post-MDG Era" (2015), World Dev, 68, 180–204, p. 197.
[72] IPCC AR6 WGII Full Report (n11), Ch7, p. 1053.
[73] IPCC AR6 WGII TS (n15), p. 51.
[74] IPCC AR6 SYR SPM (n25), para. B.2.4.
[75] IPCC SR 1.5 Full Report (n23), pg. 44; see also David R. Boyd, UN Special Rapporteur on Human Rights and Environment, Statement on the human rights obligations related to climate change, with a particular focus on the right to life (25 October) (Statement SR October 2018), para. 19, available at: https://www.ohchr.org/sites/default/files/Documents/Issues/Environment/FriendsIrishEnvironment25Oct2018.pdf.
[76] IPCC AR6 WGI TS (n36), p. 80.
[77] UNEP, "The Production Gap: The discrepancy between countries' planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C or 2°C" (2019) (UNEP Production Gap Report 2019), p. 8, available at: https://productiongap.org/wp-content/uploads/2019/11/Production-Gap-Report-2019.pdf.
[78] UNEP, "The Production Gap: Phasing down or phasing up? Top fossil fuel producers plan even more extraction despite climate promises" (2023), p. 19, available at: https://productiongap.org/wp-content/uploads/2023/11/PGR2023_web.pdf.
[79] IPCC AR6 SYR SPM (n25), para. C.1.
[80] *Ibid*, para. C.3.2.
[81] UNEP Production Gap Report 2019 (n77), p. 8.

40. In effect, this means "that most of the world's proven fossil fuel reserves must be left unburned."[82] The planned expansion of fossil fuel infrastructure thus runs contrary to the scientific evidence, and, we submit, States' human rights obligations. Notably, over half of global emissions connected to fossil fuels are linked to just 25 fossil fuel businesses.[83]
41. The role of fossil fuel production in the climate crisis and its adverse impacts have also been repeatedly highlighted by UN treaty bodies.[84] In September 2019, a joint statement by nine UN Special Procedures mandate-holders confirmed: "[b]urning coal, oil, and gas produce the vast majority of human-caused greenhouse gas emissions, resulting in the global climate emergency that endangers human rights in every region of the planet."[85]
42. The science evidences that without deep, rapid, and immediate GHG reductions, the scale of adverse impacts on the realisation and enjoyment of human rights will increase substantially. At the same time, such sustained reductions "would lead to a discernible slowdown in global warming within around two decades, and also to discernible changes in atmospheric composition within a few years (high confidence)."[86]
43. It is this scientific evidence on the necessity of reducing emissions that forms the basis of State obligations under the international framework on climate change. We submit that it also informs State obligations under other regimes, including human rights. The following section will expand on the human rights obligations of States in relation to the prevention of climate harms.

III. State Obligations on Curbing the Effects of the Climate Crisis Arise Under International Human Rights Law

A. Systemic Integration and Rules of Interpretation

44. The international legal order, including the American Convention on Human Rights, is interlinked. The norms, rights and obligations thereunder do not exist in isolation.[87] Article 31(3)(c) of the Vienna Convention on the Law of Treaties (VCLT) provides that the international legal system is dynamic in nature, "any relevant rules of international law

[82] *Ibid*.
[83] Working Group on the issue of human rights and transnational corporations and other business enterprises et al., letter of concern to Saudi Aramco, 26 June 2023 (Letter to Saudi Aramco), p. 2, available at: https://spcommreports.ohchr.org/TMResultsBase/DownLoadPublicCommunicationFile?gId=28085.
[84] Ciel et al., "States' Human Rights Obligations in the Context of Climate Change Guidance Provided by the UN Human Rights Treaty Bodies" (May 2023), available at: https://www.ciel.org/wp-content/uploads/2023/04/States-Human-Rights-Obligations-in-the-Context-of-Climate-Change-2023.pdf.
[85] Office of the High Commissioner for Human Rights (OHCHR), Press Release, UN Climate Action Summit, "Our addiction to fossil fuels causes climate emergency" (23 September 2019), available at: https://www.ohchr.org/en/press-releases/2019/09/united-nations-climate-action-summit.
[86] IPCC AR6 SYR SPM (n29), para. B.1.
[87] *Reply to State Party's Submissions on Admissibility and Merits dated 29 May 2020 from Authors of Communication No. 3624/2019 (Billy et al v Australia) submitted under the Optional Protocol to the International Covenant on Civil and Political Rights*, counsel advising were Monica Feria-Tinta, Sudhanshu Swaroop KC and Simon Milnes, available at: https://ourislandsourhome.com.au/wp-content/uploads/sites/92/2021/03/CCPR-Communication-No-3624-of-2019-Billy-et-al-v-Australia-Authors-Reply-29-Sept-2020-Annex.pdf.

applicable in the relations between the parties" shall be taken into account when interpreting a treaty and the obligations on States.[88]

45. Consistent with this principle, international treaty provisions, including Article 29 of the American Convention, frequently refer to other international standards and rules as a means for interpretation. This allows for a harmonised development and application of international law and coherence between the various legal obligations on States.[89] It is common practice of, amongst others, this Court, the International Court of Justice (ICJ), the ITLOS, the UN Human Rights Committee (UN HRC) and the European Court of Human Rights.[90]
46. This Court's advisory opinion OC-10/89 confirmed findings of the ICJ that: "an international instrument must be interpreted and applied within the overall framework of the judicial system in force at the time of the interpretation."[91] In subsequent case law, this Court has relied on other international instruments to inform obligations under the Inter-American system, as well as the VCLT to affirm that: "human rights treaties are live instruments, whose interpretation must go hand in hand with evolving times and current living conditions."[92] It went on to hold that: "when interpreting the Convention it is always necessary to choose the alternative that is most favorable to protection of the rights enshrined in said treaty, based on the principle of the rule most favorable to the human being."[93]
47. This Court has also previously determined that owing to the indivisible nature of human rights and environmental protection, the principles, rights and obligations of international environmental law "make a decisive contribution to establishing the scope of the obligations under the American Convention."[94] It is based on this that we respectfully submit the following.

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[88] United Nations, Vienna Convention on the Law of Treaties (VCLT) (1969), art. 31(3)(c).
[89] *Human Rights Committee*, 'General Comment No. 36 (2018) on Article 6 of the International Covenant on Civil and Political Rights, on the Right to Life', UN Doc. CCPR/C/GC/36 (15 October 2018), pgs. 14–15, available at: https://www.ohchr.org/en/documents/general-comments-and-recommendations/general-comment-no-36-article-6-right-life; Philippe Sands, "Treaty, custom and the cross-fertilization of International Law", 1 *Yale Human Rights and Development Law Journal* (1998).
[90] See for example: European Court of Human Rights (ECtHR), *Bosphorus Hava Yollar Turim*, application no. 45036/98 (2005), paras. 100, 150; ECtHR, *Rees v the United Kingdom*, application no. 9532/81 (1986), para. 47; ECtHR; Gabcikovo-Nagymaros Project (*Hungary v Slovakia*) I.C.J. Reports 1997, para. 112; International Law Commission, Fragmentation of International Law: Difficulties Arising From the Diversification and Expansion of International Law – Report of the Study Group, *A/CN.4/L.702* (18 July 2006), available at: https://legal.un.org/ilc/documentation/english/a_cn4_l702.pdf; Inter-American Court of Human Rights, *Advisory Opinion OC-23/17 of November 15, 2017 Requested by the Republic of Colombia* (IACtHR AO OC-23/17), available at: http://climatecasechart.com/wp-content/uploads/sites/16/non-us-case-documents/2017/20171115_OC-2317_opinion.pdf.
[91] Inter-American Court of Human Rights, Advisory Opinion OC-10/89 of July 14, 1989 Requested by the Republic of Colombia (IACtHR AO OC-10/89), para. 37, available at: https://corteidh.or.cr/docs/opiniones/seriea_10_ing1.pdf.
[92] IACtHR, *Case of the "Mapiripán Massacre" v. Colombia*. Merits, reparations and costs. Judgement of September 15, 2005, para. 106, fn. 185.
[93] Ibid.
[94] IACtHR AO OC-23/17 (n90), para. 55.

B. International Human Rights Law Applies to the Climate Crisis and Provides for Obligations on States

48. The adverse impacts of environmental degradation and the climate crisis threaten fundamental human rights. This link is confirmed through international and regional human rights treaties, including the American Convention, as well as the practice of international, regional and national courts and tribunals, UN treaty bodies and special procedures.[95]
49. Additionally, the inclusion of protection against climate harms within the IHRL framework is explicitly provided for in the recent UN General Assembly resolution on the right to a clean, healthy and sustainable environment.[96] Its preamble definitively links the resolution to existing climate legal instruments[97] and highlights the negative impact of climate change on the enjoyment of a clean, healthy and sustainable environment and its implications for the effective enjoyment of all human rights.[98] The resolution enjoyed nearly unanimous adoption by States with no State voting against it. This consensus stands testament to the widespread determination of States to recognise the rights to both a healthy environment and safe climate as fundamental human rights.
50. In one of the first international decisions to consider climate change and its effects on human rights, *Daniel Billy and Others v Australia,*[99] the UN HRC was called on to consider whether under the International Covenant on Civil and Political Rights (ICCPR), States were required to address the impacts of the climate crisis.
51. Eight indigenous individuals from the low lying Torres Strait Islands asked the Committee to apply the ICCPR to climate change impacts such as rising sea levels, coral bleaching, biodiversity loss, flooding of their homes and burial sites, and sea water contamination of agricultural land.[100] These devastating climate harms, the complainants submitted, resulted from Australia's failure to implement adaptation and mitigation measures to combat adverse climate change impacts within its territory.
52. In its decision, the UN HRC found that with respect to adaptation measures, the rights invoked by the claimants each entailed positive obligations on States parties to ensure the

[95] UN Reports on human rights and climate change are available at: https://www.ohchr.org/en/climate-change/reports-human-rights-and-climate-change.
[96] Resolution adopted by the General Assembly, Promotion and protection of human rights: human rights questions, including alternative approaches for improving the effective enjoyment of human rights and fundamental freedoms, A/RES/76/300 (2022).
[97] *"Recalling States' obligations and commitments under multilateral environmental instruments and agreements, including on climate change", ibid,* p. 2.
[98] *"Recognizing also that … the impact of climate change [and other environmental harms] interfere with the enjoyment of a clean, healthy and sustainable environment and that environmental damage has negative implications, both direct and indirect, for the effective enjoyment of all human rights", ibid.*
[99] UN HRC, Views adopted by the Committee under article 5(4) of the Optional Protocol, concerning communication No. 3624/2019, *Billy et al v Australia*, CCPR/C/135/D/3624/2019 (22 September 2022) (CCPR/C/135/D/3624/2019).
[100] *Ibid*, paras. 2.3-2.5.

protection of individuals under their jurisdiction against violations of those provisions resulting from climate change impacts.[101]

53. With respect to mitigation measures, the UN HRC considered that Australia's position *"among the countries in which large amounts of greenhouse gas emissions have been produced"* and its high rank *"on world economic and human development indicators,"* provided a relevant basis for the Committee to scrutinise its mitigation measures as well.[102] Ultimately, however, in its consideration of the merits, the UN HRC did not analyse Australia's mitigation measures.
54. Nonetheless, the Committee considered the disastrous effects of climate change, as outlined by the petitioners, to interfere directly with several rights protected under the ICCPR. In so finding, the UN HRC concluded that States have a positive obligation to implement timely and adequate adaptation measures to protect people's home, and private and family life from these adverse impacts.
55. The UN HRC relied on the evidence of erosion and flood damage to the homes of the claimants and their communities, as well as the risk of dispossession. It also noted the claimants' dependence on the health of surrounding ecosystems, the reduction of marine resources used for food, and the loss of crops and fruit trees on the land on which the claimants lived and grew crops.
56. The Committee concluded:

> *"[w]hen 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. The Committee concludes that the information made available to it indicates that by failing to discharge its positive obligation to implement adequate adaptation measures to protect the authors' home, private life and family, the State party violated the authors' rights under article 17 of the Covenant."*[103]

57. This marked the first time the UN HRC found a State responsible for failing to protect human rights from climate change impacts – in this case, rising sea levels, increasing temperatures, coral bleaching, salt water contamination and others.

[101] *Ibid*, para. 7.7.
[102] *Ibid*, para. 7.8.
[103] *Ibid*, para. 8.12.

58. This also marked the first time the UN HRC recognised that climate change puts Indigenous Peoples' culture at risk. The Committee found Australia had failed to adopt "*timely adequate adaptation measures to protect the authors' collective ability to maintain their traditional way of life, to transmit to their children and future generations their culture and traditions and use of land and sea resources"* in violation of its positive obligation to protect the authors' right to enjoy their minority culture under Article 27 ICCPR.
59. With respect to the right to life, the majority members of the UN HRC found no violation of Article 6 ICCPR, despite clearly stating that adverse climate change impacts constitute "*some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life"* and that States may be in violation of the right to life even if such threats and situations do not result in the loss of life.[104]
60. Ultimately, the UN HRC obliged Australia to: (i) provide adequate compensation to the claimants for the harm that they have suffered; (ii) engage in meaningful consultations with the claimants' communities in order to conduct needs assessments; (iii) continue its implementation of measures necessary to secure the communities' continued safe existence on their respective islands; (iv) monitor and review the effectiveness of the measures implemented and resolve any deficiencies as soon as practicable; and, crucially, (v) take steps to prevent similar violations in the future.
61. Climate displacement is another impact of the climate crisis that has been examined by the UN HRC. In *Teitiota v New Zealand*, the UN HRC considered that "due to the impact of climate change and associated sea level rise on the habitability of Kiribati and on the security situation on the islands" the complainant, a rejected asylum seeker awaiting removal, could have faced a real risk of impairment of his right to life as a result of New Zealand's decision to remove him to Kiribati – a Pacific Island State.[105] The Committee ultimately denied the claim on grounds that the complainant was not at "imminent" risk according to the evidence before it. Nonetheless, its decision helpfully confirmed that the principle of *non-refoulement* – i.e. the principle that people who flee cannot be returned to their country of origin if fundamental human rights, such as the right to life, would be at risk on return – could also extend to climate related harms. Both cases reinforce the applicability of the international human rights regime to climate change impacts.
62. The UN Committee on the Rights of the Child too has affirmed the applicability of the Convention on the Rights of the Child (CRC) to the climate crisis and State responses

[104] *Ibid*, para. 8.3.
[105] UN HRC, Views adopted by the Committee under article 5(4) of the Optional Protocol, concerning communication No. 2728/2016, *Teitiota v. New Zealand*, UN Doc. CCPR/C/127/D/2728/2016 (7 January 2020), para. 8.6.

thereto.[106] It has stated that climate change poses a risk to children's right to health, protected under Article 24 CRC, relying on evidence such as "rising temperatures caused by climate change" increasing "the risk of vector-borne and zoonotic diseases and concentrations of air pollutants that stunt brain and lung development and exacerbate respiratory conditions." [107] Further, the Committee on the Rights of the Child has established that the challenges presented by the climate crisis require a dynamic interpretation of the obligations under the CRC, including a recognition that the duty of protection extends to "the children constantly arriving" as they are "also entitled to the realization of their human rights to the maximum extent."[108]

63. To ensure maximum realisation of said rights in the future, ambitious action on climate change is required in the present to minimise future harms. This is particularly true as the full effects of environmental harms, including climate change, may not manifest or be felt for years or decades to come.[109] Unilaterally offloading reduction responsibilities, as well as restrictions on the enjoyment and full realisation of human rights onto the future and thereby future generations, risks violation of the right to non-discrimination, one of the most fundamental tenets of the international human rights order. This is confirmed by the Maastricht Principles on the Rights of Future Generations.[110]

i. The Obligation to Protect Against Foreseeable Climate Harms to Human Rights and the Effectiveness of Measures

64. This Court has clarified that in relation to environmental pollution:

> "*'States are bound to use all the means at their disposal to avoid activities under its jurisdiction causing significant harm to the environment.' This obligation must be fulfilled in keeping with the standard of due diligence, which must be appropriate and proportionate to the level of risk of environmental harm.*
>
> *(…)*
>
> *[T]he following are some measures that must be taken in relation to activities that could potentially cause harm: (i) regulate; (ii) supervise and monitor; (iii) require and approve*

[106] UN Committee on the Rights of the Child (UN CRC), Decision adopted under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure in respect of Communication No. 104/2019, *Sacchi et al v Argentina et al*., UN Doc. CRC/C/88/D/1047/2019 (8 October 2021). See also UN CRC, General comment No. 26 (2023) on children's rights and the environment, with a special focus on climate change, UN Doc. CRC/C/GC/26 (22 August 2023) (CRC/C/GC/26).
[107] CRC/C/GC/26 (n106), para. 39.
[108] *Ibid*, para. 11.
[109] *Ibid*.
[110] Maastricht Principles on The Human Rights of Future Generations, principle 6(e).

environmental impact assessments; (iv) establish contingency plans, and (v) mitigation, when environmental damage has occurred."[111]

65. These measures, albeit formulated with respect to environmental pollution, correspond to the approach adopted by international human rights bodies to ensure effective protection of the right to life and other rights in the context of climate change.[112] The UN Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, defined the following four main categories of climate actions that must be taken by States to comply with their human rights obligations:

> "(i) addressing society's addiction to fossil fuels;
>
> (ii) accelerating other mitigation actions;
>
> (iii) protecting vulnerable people from climate impacts; and
>
> (iv) providing unprecedented levels of financial support to least developed countries and small island developing States."[113]

66. This obligation to protect human rights includes the obligation on States to prevent foreseeable harms.[114] In the context of the climate crisis, this obligation to prevent foreseeable harms requires States to take mitigation, adaptation and other measures.[115]
67. Taking such measures alone is not sufficient. They must be effective in practice, i.e. they must be capable of achieving the mitigation and adaptation goals.[116] To that end, the Office of the High Commissioner for Human Rights has stated that "States (duty-bearers) have an affirmative obligation to take effective measures to prevent and redress these climate impacts, and therefore, to mitigate climate change and to ensure that all human beings (rights-holders) have the necessary capacity to adapt to the climate crisis."[117]

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[111] IACtHR, *Case of the Indigenous Communities of the Lhaka Honhat (Our Land) Association v. Argentina*. Merits, reparations and costs. Judgement of February 6, 2020, Series C No. 400, para. 208 (*Lhaka Honhat v. Argentina*).
[112] CCPR/C/GC/36 (n89), para. 62.
[113] A/74/161 (n51), paras. 74-75.
[114] See e.g.: UN Human Rights Council, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, A/HRC/31/52 (1 February 2016) (A/HRC/31/52), para. 67; A/74/161 (n51), para. 62; OHCHR, Report of the Special Rapporteur on the Promotion and Protection of Human Rights in the Context of Climate Change, A/77/226 (26 July 2022) (A/77/226), para. 9; IACtHR, *Case of Luna López v. Honduras*. Merits, reparations and costs. Judgment of October 10, 2013. Series C No. 269 (Luna López v. Honduras*)*, para. 118; *Lhaka Honhat v. Argentina* (n111), paras. 207-208.
[115] This obligation to prevent climate harms can be linked also to the international environmental law principle of prevention, according to which action should be taken to protect the environment at an early stage on the basis that preventing environmental damage is cheaper and less environmentally dangerous than repairing damage after it has occurred.
[116] IACtHR AO OC-23/17 (90), paras. 115, 123, 146; *Lhaka Honhat v. Argentina* (n111), paras. 116, 287; *Billy et al v Australia* (n), para. 13.
[117] OHCHR, Understanding Human Rights and Climate Change, Submission to the 21st Conference of the Parties to the UNFCCC (2015) (Submission to COP 2015), available at:

68. First and foremost among the preventive obligations of States is the duty to adopt adequate climate legislation and administrative measures,[118] both in terms of setting sufficient targets for reducing emissions and putting in place sufficient measures to achieve those targets.
69. To ensure the sufficiency of targets and the prevention of harm, mitigation measures, objectives and policy must reflect the best available science and be regularly reviewed, representing progressively more protection of human rights.[119]
70. A set of minimum legislative State measures in the climate crisis context was recommended by the UN Special Rapporteur on Climate Change in his July 2023 Report.[120] These recommendations provide authoritative guidance of the legislative measures a State must take to comply with its human rights obligations in the context of the climate crisis.
71. For example, effective climate legislation must fully recognise two international environmental law principles: the precautionary principle[121] and the 'polluter pays' principle.[122] It should also provide procedural rights to information, participation and justice, and facilitate access to those rights for women, children and Indigenous Peoples. Of particular importance is the requirement to provide opportunities for children and young people to participate in climate decision-making.[123]
72. Finally, as will be expanded on further below, effective climate legislation also must provide effective regulation of business,[124] as also provided for through this Court's interpretation of the right to a healthy environment.[125]
73. To conclude this section: international human rights law requires States to take steps to ensure the protection of the enshrined human rights, and ensure the effectiveness of such protection in practice. It is our submission that in light of the scientific evidence on climate change, IHRL obliges States to mitigate GHG emissions in line with the best available

https://www.ohchr.org/sites/default/files/Documents/Issues/ClimateChange/COP21.pdf; OHCHR, Human Rights and Climate Change Key Messages (OHCHR Key messages), available at: https://www.ohchr.org/sites/default/files/Documents/Issues/ClimateChange/materials/KMClimateChange.pdf.

[118] IACtHR AO OC-23/17 (n90), para. 146; with further reference to: IACtHR, *Case of Vélez Loor v. Panama*. Preliminary objections, merits, reparations and costs. Judgment of November 23, 2010. Series C No. 218, para. 286; *Lhaka Honhat v. Argentina* (n111), para. 116.

[119] CRC GC26 (n106), paras. 42, 71, 96.

[120] OHCHR, Report of the Special Rapporteur on the promotion and protection of human rights in the context of climate change, A/78/255 (28 July 2023) (A/78/255).

[121] Under the precautionary principle, in situations of scientific uncertainty or ignorance, action is required to prevent or reduce potentially serious or irreversible threats to human rights and/or the climate; see 1992 Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26 (Vol. I) (12 August 1992) (Rio Declaration), Principle 15.

[122] Under the 'polluter pays' principle, the polluter should bear the costs of pollution control and remediation rather than externalising those costs onto the community; A/78/255 (n120), paras. 68 (f) and (g); Rio Declaration (n121), principle 16.

[123] A/78/255 (n120), paras. 68 (b) and (c); CRC/C/GC/26 (n106), paras. 26-28, 102.

[124] A/78/255 (n120), para. 69(h).

[125] *Lhaka Honhat v. Argentina* (n111), paras. 207, 208.

science, to curb the most severe impacts on the full enjoyment and realisation of human rights.

C. The Obligation to Reduce Greenhouse Gas Emissions

74. The scientific evidence on the negative impacts of the climate crisis on the full enjoyment and realisation of human life and well-being is irrefutable. The harms are clear and foreseeable. At the same time, the international human rights framework is clear on the obligation of States to prevent foreseeable harm to human rights, including through the reduction of environmental harms. This includes climate harms.
75. This is also provided for through the application of the precautionary principle. It mandates a preventive approach to environmental protection and management even where, unlike in the climate crisis, scientific uncertainty on potential risks and harms exists.[126] The precautionary principle has been recognised as central to the protection of human rights and the realisation of States' human rights obligations.[127]
76. In its 2017 advisory opinion, this Court emphasised that protection of the rights to life and personal integrity required States to act diligently, which required adherence to the precautionary principle where "plausible indications" existed that an activity could cause severe and irreparable harm to the environment, requiring States to take effective measures.[128]
77. This Court has clarified that the duty to act with due diligence corresponds "to the State obligation to ensure the free and full exercise of the rights recognized in the American Convention to all persons subject to their jurisdiction, according to which States must take all appropriate measures to protect and preserve the rights recognized in the Convention."[129] It is recognised that the duty of due diligence may change over time to account for new developments, including those of a scientific and technical nature.[130] We submit that this must include considerations of the best available science and lead to the conclusion that States are under the obligation to take drastic measures on GHGs to limit the most severe impacts on human life and well-being already occurring today.
78. This approach is further supported through the *Billy et al* decision of the UN HRC, where the concurring opinion of a Committee member found that:

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[126] Rio Declaration, principle 15; UNFCCC, art. 3(3); United Nations, *Stockholm Convention on Persistent Organic pollutants*, revised in 2019, art. 1]; United Nations, *Convention on Biological Diversity, adopted by the Intergovernmental Negotiating Committee for a Convention on Biological Diversity,* 29 December 1993, preamble.
[127] CCPR/C/GC/36 (n89), para. 62; Committee on Economic, Social and Cultural Rights, General comment No. 25 (2020) on science and economic, social and cultural rights (article 15 (1) (b), (2), (3) and (4) of the International Covenant on Economic, Social and Cultural Rights), E/C.12/GC/25 (30 April 2020), para. 56.
[128] IACtHR AO OC-23/17 (n90), paras. 125, 180.
[129] *Ibid*.
[130] *Ibid*, para. 142; ITLOS, *Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area*. Advisory Opinion of February 1, 2011, ITLOS Reports 2011 (Request for Advisory Opinion Submitted to the Seabed Disputes Chamber), para. 117.

> "*When it comes to mitigation measures, assessing the nationally determined contributions taken by States parties to the ICCPR under the 2015 Paris Agreement, when the State is party to both treaties, is an important starting point.* ***States are under a positive obligation to take all appropriate measures to ensure the protection of human rights****. In this context,* ***the due diligence standard requires States to set their national climate mitigation targets at the level of their highest possible ambition and to pursue effective domestic mitigation measures with the aim of achieving those targets****. (...)* ***States should act with due diligence when taking mitigation and adaptation action, based on the best science.*** *This is an individual responsibility of the State, relative to the risk at stake and its capacity to address it.* ***A higher standard of due diligence applies in respect of those States with significant total emissions or very high per capita emissions (whether these are past or current emissions), given the greater burden that their emissions place on the global climate system, as well as to States with higher capacities to take high ambitious mitigation action.***"[131] (emphasis added).

79. On the basis of this, it is evident that States are under an obligation to curb the climate crisis' most severe impacts on human rights, bearing in mind their respective responsibilities and capabilities. Recalling the adverse impacts occurring at current levels of warming, as outlined in Section II above, this can only be achieved through the drastic reduction of GHG emissions. The scope of this obligation to mitigate is informed by climate science and the international legal framework on climate change, which shall be considered next.

i. The International Legal Framework on Climate Change

80. The international approach to the reduction of GHG emissions is provided for under the UNFCCC and its subsequent instruments, including the 2015 Paris Agreement. Both the UNFCCC and the Paris Agreement enjoy almost universal ratification, including by all States Parties to the American Convention.[132]

81. As mentioned above, their core objective is the stabilisation of atmospheric concentrations of GHGs to avoid the most severe impacts on the climate system,[133] as a means "to protect the climate system for present and future generations."[134]

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[131] *Billy et al v Australia* (CCPR/C/135/D/3624/2019) (n99), Individual Opinion by Committee Member Gentian Zyberi, p. 20-21.
[132] See the UN Treaty Collection, for the UNFCCC: (https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en) and for the Paris Agreement: (https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=IND&mtdsg_no=XXVII-7&chapter=27&Temp=mtdsg3&clang=_en).
[133] UNFCCC, art. 2.
[134] UNFCCC, preamble and art. 3.

82. In order to achieve this objective, Article 2(1)(a) of the Paris Agreement sets out that the increase in global average temperature should be limited "to well below 2°C" and "pursuing efforts to limit the temperature increase to 1.5°C" above pre-industrial levels.
83. Experts have concluded that current levels of warming run contrary to the UNFCCC's underlying objective to prevent dangerous anthropogenic interference with the climate system, as severe adverse impacts on human health and well-being are scientifically well-founded and therefore "neither 1.5°C or 2°C can be considered as safe targets for warming."[135] In our submission, this conclusion has direct implications for the application of IHRL to the evidence – in principle IHRL does not permit certain levels of human rights infringement, it applies equally to all such harms, thus including climate harms.
84. As noted in Section II above, it is both scientifically proven as well as legally acknowledged through the UNFCCC that the stabilisation of atmospheric concentrations of GHGs requires the reduction of GHGs in the atmosphere, including a dramatic reduction in overall fossil fuel use.[136] To this end the Paris Agreement sets out obligations on States to mitigate GHG emissions. These include, *inter alia*:[137]
    a. Article 3: the obligation to undertake and communicate ambitious efforts (as defined in Articles 4, 7, 9, 10, 11 and 13) with a view to achieving the warming limit set out in Article 2;
    b. Article 4(1): the obligation to peak greenhouse gas emissions as soon as possible, to reach net zero in the second half of the century and to undertake rapid reductions in accordance with the best available science;
    c. Article 4(2): the obligation to prepare, communicate and maintain successive Nationally Determined Contributions (NDCs) and to pursue domestic mitigation measures with the aim of achieving the objectives of the NDCs, to be communicated every five years (Article 4(9));
    d. Article 4(3): the obligation that each NDC must represents a progression beyond the previous and reflect the State Parties' "highest possible ambition," taking account of States' common but differentiated responsibilities and respective capabilities.
85. Beyond these individualised obligations on States, the Paris Agreement also places on States the obligation to cooperate, and particularly to strengthen the capacity of developing countries to implement the Paris Agreement.[138]

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[135] Statement SR October 2018 (n75), para. 18.
[136] *Ibid*.
[137] Written Statement by ClientEarth to ITLOS concerning the request for an advisory opinion on climate change and international law, 15 June 2023, para. 84, available at: https://www.itlos.org/fileadmin/itlos/documents/cases/31/written_statements/4/C31-WS-4-3-ClientEarth.pdf.
[138] Paris Agreement, art. 11(3).

86. This duty to cooperate is informed by the principles of common but differentiated responsibilities and respective capabilities (CBDR-RC) which reflects the fundamental notion of equity and embodies the reality that while all States are responsible for the protection of the environment, not all States are equally responsible for the environmental harm caused, nor able to respond and address the harm in equal terms.[139]
87. Climate change by its very nature is a global concern, as GHGs emitted anywhere contribute to total global emissions and negative effects – albeit to varying degrees – everywhere. States must thus take individual as well as joint action in response to the climate crisis. To be clear: the fact that all States emit GHGs does not relieve individual States of their individual responsibility.[140] In its *Billy* decision, the UN HRC dismissed Australia's claims that due to the global character of the climate crisis, climate harms could not be attributed to an individual State and therefore, neither duties, obligations, nor responsibility for emissions within its territory could arise for Australia.[141] Instead, the UN HRC held that responsibility for climate harms arose for the individual State.
88. It even went further and found that:

"*States parties must prevent interference with a person's privacy, family or home that arises from conduct* ***not*** *attributable to that State, at least where such interference is foreseeable and serious. Thus, when environmental damage threatens disruption to privacy, family and the home, States parties must prevent serious interference with the privacy, family and home of individuals under their jurisdiction*" (emphasis added).[142]

89. In so holding, the UN HRC established that irrespective of the origin of the environmental harm, i.e. climate harm, States are under an obligation to prevent interference with human rights where such interference is serious and foreseeable. It thereby accepted the claimants' arguments that not establishing individual State responsibility, "would lead to the absurd conclusion that no State could ever be held liable for the effect of its wrongful GHGs due to the character of climate change as a cumulative problem to which all States contribute."[143]

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[139] Written Statement by CIEL and Greenpeace to ITLOS concerning the request for an advisory opinion on climate change and international law, 15 June 2023, paras. 79-81, available at: https://www.itlos.org/fileadmin/itlos/documents/cases/31/written_statements/4/C31-WS-4-5-CIEL___GPI.pdf ; A/HRC/31/52 (n114), para 48.
[140] *Billy et al v Australia* (CCPR/C/135/D/3624/2019) (n99), paras. 7.6-7.8, 8.9.; Individual opinion of Committee member Gentian Zyberi (concurring), para. 5.
[141] E.g. *Billy et al v Australia*, Communication No. 3624/2019, Australian Government Response to Additional Submissions for the Authors (29 September 2020), paras. 62-63, available at: https://ourislandsourhome.com.au/wp-content/uploads/sites/92/2021/03/210805-Final-Response-Submissions-CCPR-Communication-No.-36242019-....pdf.
[142] *Billy et al v Australia* (CCPR/C/135/D/3624/2019) (n99), para. 8.9
[143] *Billy et al v Australia,* Reply to the State's Party Submission on Admissibility and Merits (29 May 2020), para. 74, available at: https://ourislandsourhome.com.au/wp-content/uploads/sites/92/2021/03/CCPR-Communication-No-3624-of-2019-Billy-et-al-v-Australia-Authors-Reply-29-Sept-2020-Annex.pdf.

90. If in fact, due to the global character of the climate crisis, States were not responsible for taking individualised action and providing protection from climate harms, the individual reduction efforts and goals set by States, as well as the individual international human rights obligations accepted by States, would be rendered meaningless, thus running contrary to the principle of effectiveness, *effet utile*.
91. That is why it is unsurprising that the individual responsibility of and obligations on States have been addressed in national courts. Domestic courts have been applying IHRL, the Paris Agreement, and/or national constitutional or fundamental rights law to the impacts of climate crisis, to inform and define the scope of State obligations to prevent foreseeable harms to human rights.[144]

ii. Relevant National Developments on Mitigation Obligations

92. In the 2019 *Urgenda Foundation v the State of Netherlands* case*,* the Dutch courts affirmed that an obligation to reduce GHG emissions arose under human rights law, namely the European Convention on Human Rights (ECHR).[145] In so doing, the courts accepted that while "climate change is a global problem that needs to be solved globally",[146] each country is under an obligation to reduce its GHG emissions in "proportion to its share of the responsibility."[147] These findings were based on the obligations on States specifically arising under Articles 2 and 8 of the ECHR, as the courts found climate change to pose a serious risk to the rights to life and private and family life.[148]
93. To determine the content of the mitigation obligation on the Dutch state, the Supreme Court relied on findings of scientific consensus, such as the IPCC reports, and the internationally accepted urgency of curbing the harms of the climate crisis.[149] On the basis of these, the Supreme Court upheld the individual actions required by the Netherlands to comply with its human rights obligations.[150]
94. The Supreme Court held that the provisions of the ECHR obliged "a contracting state (…) to take suitable measures if a real and immediate risk to people's lives or welfare exists and the state is aware of that risk. The obligation to take suitable measures also applies

[144] *Neubauer et al v Federal Republic of Germany* (Case No. 1 BvR 2656/18, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20), Federal Constitutional Court of Germany Order of 24 March 2021 (*Neubauer et al*); *The State of The Netherlands v Urgenda*, Case No. 19/00135, Dutch Supreme Court Judgment of 20 December 2019 (*Urgenda*, Supreme Court); *The State of The Netherlands v Urgenda,* The Hague Court of Appeal (9 October 2018), Case 200.178.245/01 (*Urgenda*, Court of Appeal).
[145] *Urgenda*, Supreme Court (n144), English summary, p. 3; *Urgenda*, Court of Appeal (n144), English summary, paras. 71-75.
[146] *Urgenda*, Supreme Court (n144), English summary, para. 5.7.2.
[147] *Ibid*, p. 4.
[148] *Ibid*, paras. 5.6.1-5.8.
[149] *Ibid*, see e.g. paras. 4.4, 4.5, 7.2.1.
[150] *Ibid*, paras. 6.1.-7.3.6.

when it comes to environmental hazards that threaten large groups or the population as a whole, even if the hazards will only materialise over the long term."[151]

95. Similarly, in the *Neubauer* case before the German Constitutional Court, several provisions under the national climate framework, the Federal Climate Change Act, were challenged on the basis of fundamental rights. In its findings, the court placed reliance on the accepted scientific standards and evidence in assessing the level of State ambition and the suitability of the law.[152]
96. The court accepted the approach of a remaining carbon budget, finding that once the budget was used up "the effect is irreversible because no method is currently known for removing CO_2 emissions from the Earth's atmosphere on a large scale,"[153] emphasising the need for rapid emissions reductions rather than relying on unproven future technologies.[154]
97. The Constitutional Court also held that Germany could not evade its individual responsibility by pointing to the CO_2 emissions of other States.[155] Rather, the court emphasised the fact that the Paris Agreement relied on mutual trust, giving rise to a constitutional necessity to implement individual climate action measures at the national level in accordance with the requirements under international law.[156]
98. Ultimately, the German Constitutional Court found that there was an obligation to ensure that the reduction of CO_2 emissions was "spread out over time in a forward looking manner that respects fundamental rights."[157] The court held that as the offloading of significant reduction obligations into the future meant extreme mitigation efforts at a later point, such unilateral efforts would amount to a disproportionate burden and restriction, in violation of the full realisation of the fundamental rights and freedoms of future generations.[158]
99. In examining the content of the obligation to take climate action,[159] the German Constitutional Court acknowledged that it had both a national dimension the form of the national climate framework that incorporated the obligations under the Paris Agreement,[160] as well as an "international dimension" that requires Germany to promote climate action within the international framework (for example through negotiations, via treaties or in organisations).[161]

[151] *Ibid*, summary of the decision, p. 4.
[152] N*eubauer et al* (n144), English summary, see e.g. paras. 16-17.
[153] *Ibid*, para. 130.
[154] *Ibid*, para. 227.
[155] *Ibid*, para. 203.
[156] *Ibid*, paras. 203-204.
[157] *Ibid*, para. 243.
[158] *Ibid*, paras. 117, 183, headnote no. 4.
[159] German Basic Law, art. 20a.
[160] N*eubauer et al* (n144), English summary, para. 209.
[161] *Ibid*, paras. 201, 202, 209-211.

100. In their respective assessments of alleged constitutional and human rights violations, both national courts followed the science in assessing and interpreting State conduct and ambition, to conclude that the respective governments were not undertaking sufficient efforts to protect fundamental and human rights and curb the most severe impacts of the climate crisis.

101. Against this background, it needs to be recalled that current global efforts on mitigating GHG emissions fall fundamentally short of what is legally required to prevent foreseeable negative impacts on the full enjoyment and realisation of human rights.[162] As has been briefly touched on, the duty of prevention also requires States to regulate the activities of business actors, to ensure that measures taken to protect human rights are effective.

102. Just recently, on 30 November 2023, the Belgian Court of Appeal ruled that Belgium's failure to meet climate targets amounts to a violation of human rights.[163] The court ordered the three governments (the Belgian State, the Flemish Region, and the Brussels-Capital Region) to reduce greenhouse gas emissions by 55% by 2030 compared to 1990 levels.

103. The plaintiffs, 8,422 Belgian citizens alongside the association *Klimaatzaak*, argued that the current national climate policy was insufficient to adequately protect Belgian citizens from the dangerous effects of climate change, in violation of both the State's general duty of care under domestic law as well as the right to life and the right to private and family life protected by Articles 2 and 8 ECHR.

104. In the first instance, the Tribunal found all governments in breach of Article 2 and Article 8 ECHR as well as relevant Articles of the Belgian Civil Code on extra-contractual liability by failing to take meaningful climate action.[164] However, the Tribunal refused to impose binding GHG emissions reduction targets, arguing that imposing such targets would breach the principle of the separation of powers.

105. In the second instance, the Court of Appeal *inter alia* examined the claims related to Articles 2 and 8 ECHR. In that context, it rejected the argument that Belgium's climate action, when considered in isolation, would necessarily remain insufficient to avert dangerous climate change. Instead it found that a limited contribution to the overall, global volume of emissions does not absolve governments from fulfilling their positive human rights obligations.[165] These human rights oblige each country to contribute its "fair share" to mitigating the climate crisis. It is worth underlining that the court referenced both rulings

[162] A/77/226 (n114).
[163] Judgement of the Brussels Court of Appeal of 30 November 2023 (Brussels Court of Appeal) – 2021/AR/1589, 2022/AR/737 and 2022/AR/891, unofficial English translation available at: https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2023/20231130_2660_judgment-2.pdf.
[164] *Ibid*.
[165] *Ibid*, para. 160.

mentioned above: the Dutch Supreme Court's decision in *Urgenda* and the German Constitutional Court's judgment in *Neubauer* to reinforce its findings.[166]

D. The Duty to Regulate Business Conduct

106. The State duty to protect individuals from human rights violations – through the adoption and implementation of effective measures – requires States to protect from human rights harms by private/non-state actors, including by business enterprises.[167] States have to "regulate activities contributing to such harm," both domestically and extraterritorially.[168] This flows from the practice of, amongst others, UN human rights treaty bodies, the works of various UN Special Rapporteurs, the UN Guiding Principles on Business and Human Rights and the jurisprudence of this Court. The business-related elements of the duty to protect have particular salience regarding climate change. This section summarises these elements.

UN Treaty Bodies and Special Rapporteurs

107. In 2017, the UN Committee on Economic, Social and Cultural Rights stated that the duty to protect under the ICESCR required States to adopt "legislative, administrative, educational and other appropriate measures, to ensure effective protection against Covenant rights violations to business activities," and to "provide victims of such corporate abuses with access to effective remedies."[169]

108. In relation to the extraterritorial scope of the ICESCR, the Committee stated that nothing in the Covenant provided that the obligations arising thereunder were restricted to territory or jurisdiction.[170] It therefore concluded that extraterritorial obligations arose "when a State party may influence situations located outside its territory, consistent with the limits imposed by international law, by controlling the activities of corporations domiciled in its territory and/or under its jurisdiction, and thus may contribute to the effective enjoyment of

[166] Finally, the Court found the positive obligations under Article 2 ECHR, which, read together with the scientific evidence required Belgian public authorities to take appropriate measures between 2013 and 2020 to reach a minimum GHG emissions threshold of 25%, revised to 30% by 2018 at the latest, and, between 2020 and the day of the ruling, to take appropriate measures to reach a minimum GHG emissions threshold of 55%. The Court transferred those conclusions to its analysis of Article 8 ECHR. The judgment is not final. The parties have 3 months to lodge a final recourse with the Court of Cassation.
[167] Commission on Human Rights of the Philippines, National Inquiry on Climate Change Report, December 2022 (Report Commission of the Philippines), p. 64, available at: https://chr.gov.ph/wp-content/uploads/2022/12/CHRP_National-Inquiry-on-Climate-Change-Report.pdf; discussing UN HRC, General Comment No. 31: The Nature of the General Legal Obligation Imposed on States Parties to the Covenant, CCPR/C/21/ Rev.1/Add.13 (2004), para. 8.
[168] OHCHR, "Five UN human rights treaty bodies issue a joint statement on human rights and climate change" (16 September 2019), available at: https://www.ohchr.org/en/statements/2019/09/five-un-human-rights-treaty-bodies-issue-joint-statement-human-rights-and; OHCHR, "Committee releases statement on climate change and the Covenant" (8 October 2018), available at: https://www.ohchr.org/en/statements/2018/10/committee-releases-statement-climate-change-and-covenant; A/HRC/31/52 (n114), para. 66.
[169] General comment No. 24 (2017) on State obligations under the International Covenant on Economic, Social and Cultural Rights in the context of business activities, E/C.12/GC/24 (10 August 2017), para. 14.
[170] *Ibid.*, para. 27.

economic, social and cultural rights outside its national territory."[171] Such jurisdiction, the Committee found, included corporations incorporated under a State's laws, or with its statutory seat, central administration or principal place of business on the State's national territory.[172]

109. On the basis of this, the Committee considered that a State party would be in breach of its obligations arising under the ICESCR:

> "*where the violation reveals a failure by the State to take reasonable measures that could have prevent the occurrence of the event. The responsibility of the State can be engaged in such circumstances even if other causes have also contributed to the occurrence of the violation, and even if the State had not foreseen that a violation would occur, provided such a violation was reasonably foreseeable. For instance, considering the well-documented risks associated with the extractive industry, particular due diligence is required with respect to mining-related projects and oil development projects*."[173]

110. Similarly, Article 6 (right to life) under the ICCPR has been interpreted as to require States Parties to take appropriate measures where the activities of corporate entities based in their territory or under their jurisdiction have "a direct and reasonably foreseeable impact on the right to life of individuals outside their territory."[174]

111. In the case of *Portillo Cáceres and Others v Paraguay*, the UN HRC was called upon to determine whether a State party had failed to discharge its obligations arising under the ICCPR by, amongst others, failing to diligently enforce environmental standards and laws in respect of the environmentally harmful activities of agribusinesses. In failing to do so, the authors submitted, the State violated their right to life and physical integrity and their right to private, family and home life.

112. The UN HRC, in establishing a violation, upheld that the rights to life and to enjoy a life with dignity entailed being "free from acts or omissions" that would result in "unnatural or premature death."[175] This required that where threats are reasonably foreseeable, States take:

[171] *Ibid.*, para. 28.
[172] *Ibid.*, para. 31.
[173] *Ibid.*, para. 32.
[174] CCPR/C/GC/36 (n89), para. 22.
[175] UN HRC, Views adopted by the Committee under article 5(4) of the Optional Protocol, concerning communication No. 2751/2016, *Portillo Cáceres and Others v Paraguay*, CCPR/C/126/D/2751/2016 (20 September 2019) (*Portillo Cáceres and Others v Paraguay* CCPR/C/126/D/2751/2016), para. 7.3.

"*all appropriate measures to address the general conditions in society that may give rise to threats to the right to life or prevent individuals from enjoying their right to life with dignity, and these conditions include environmental pollution*."[176]

113. Noting that obligations in relation to the protection of human life and health and the control of environmental pollutants arose for the State party, both under the ICCPR as well as another international treaty, namely the Stockholm Convention on Persistent Organic Pollutants,[177] the Committee concluded that a violation of the right to life could be established, "even if such threats and situations do not result in the loss of life."[178] In conclusion, the Committee held that the positive obligations placed on States under the ICCPR required of States to place controls on business activities that created pollution.[179]

114. It is our submission that in light of the scientific evidence on the foreseeable adverse impacts of GHG emissions and consequent global warming on human life and well-being and the requirement that measures to protect human rights are effective, States are under an obligation to regulate business conduct.

115. In a joint statement, five UN Human Rights treaty bodies confirmed that the "[f]ailure to take measures to prevent foreseeable harm caused by climate change, or to ***regulate activities contributing to such harm***, could constitute a violation of States' human rights obligations"[180] [emphasis added].

116. A report by the UN Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, confirmed that the substantive obligations of States included the duty to regulate private actors to protect from human rights abuses linked to environmental harms.[181] Such regulation of private actors must include the effective enforcement of environmental laws and policies vis-à-vis business actors and provide for redress.[182] Importantly, measures taken to address environmental protection, must be non-retrogressive and take into account the best available science and reflect a precautionary approach to environmental harms.[183]

117. Principles of international environmental law reinforce these human rights obligations. The no-harm rule mandates that polluting activities occurring within the territory or under the control of one State may not cause harm to the people or environment of another State or to areas beyond national jurisdiction.[184]

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[176] *Portillo Cáceres and Others v Paraguay* (CCPR/C/126/D/2751/2016) (n175), para. 7.3.
[177] *Ibid.*
[178] *Ibid.*
[179] *Ibid.*, para. 7.7.
[180] Joint Statement on Human Rights and Climate Change, HR1/2019/1 (14 May 2020), para. 10.
[181] OHCHR, Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, A/HRC/37/59 (24 January 2018) (A/HRC/37/59), paras. 3, 34.
[182] *Ibid.*, para. 28
[183] *Ibid.*, para. 33.
[184] Rio Declaration (n121), principle 6.

118. Based on the foreseeable nature of the ever-increasing adverse impacts of the climate crisis on human life and well-being (as outlined in Section II above), it is our submission that States can only comply with their obligation to prevent violations of human rights if they also regulate business conduct, due to the significant contributions of business actors to global GHG emissions. Further, the no-harm principle is violated as a result of excessive GHG emissions which, irrespective of where they are emitted, cumulatively contribute to the adverse effects on human health and well-being.

The Inter-American Court

119. This Court, too, has confirmed that the obligation to ensure the rights under the American Convention includes the duty to prevent the violation of rights by third parties.[185] This includes corporate actors. Responsibility of a State may be triggered where a State has failed to regulate, supervise or monitor the activities of third parties under their jurisdiction that are the source of the environmental damage or that may cause significant harm.[186]

120. And such jurisdiction encompasses any situation in which a State party exercises authority over a person or subjects the person to its 'effective control', regardless of whether they are within or outside of the State's territory.[187] Similarly, this Court found that it did not matter whether the damage occurred "within or outside the territory of the State of origin,"[188] and that jurisdiction could be established irrespective of "the lawful or unlawful nature of the conduct that generates the damage."[189]

121. In the context of business activities particularly this last finding is of significance. As mentioned above, GHG emissions anywhere contribute to overall global emissions and climate harms and impacts everywhere. It is therefore crucial that jurisdiction over business activities is established, where such activities contribute to harmful levels of greenhouse gas emissions.

The UN Guiding Principles on Business and Human Rights

122. This duty to regulate business enterprises is set out in Principle 1 of the UN Guiding Principles on Business and Human Rights (UNGPs), according to which: "States must protect against human rights abuses within their territory and/or jurisdiction by third parties, including business enterprises."[190] Subsequently, States must take steps, including the adoption of effective policies, legislation and regulations and provide redress even where

[185] IACtHR AO OC-23/17 (n90), para. 118; *Luna López v. Honduras* (n114), para. 118.
[186] IACtHR, AO OC-23/17 (n90), para 119.
[187] *Ibid*, paras. 81, 102.
[188] *Ibid*, paras. 103,133.
[189] *Ibid*, para. 103.
[190] UN Guiding Principles on Business and Human Rights (UNGPs), HR/PUB/11/04 (2011).

the activities concerned are not prohibited by international law.[191] The UNGPs are progressively being applied to climate change-related adverse impacts on human rights with increasing specificity, as this section explains further.

123. The UNGPs are the authoritative global standard of business practice in relation to human rights, codifying existing State and corporate standards and practices.[192] They have been unanimously affirmed by the UN Human Rights Council.[193] Furthermore, States' publication of their National Action Plans (NAPs) demonstrate that the UNGPs are already explicitly recognised and implemented at national level. Over 20 States out of the 26 States that published their NAPs, had taken policy or legislative measures implementing the UNGPs at national level, thereby affirming that they reflect IHRL duties on States. The broad acceptance of the UNGPs reflects, the "common international understanding of business and human rights, and the corresponding duties of the State."[194]

124. In view of their status, this Court has previously relied on the UNGPs – and the authority afforded to them through States and international organs – as an accepted statement of State obligations in relation to oversight of private actors, particularly under Article 1 (Obligations to Respect Rights) and Article 2 (Domestic Legal Effects).[195]

125. In the context of the climate crisis, the UN Working Group on Business and Human Rights (UNWG), mandated to promote the UNGPs, has provided important analysis and guidance on how States must successfully discharge their human rights obligations as they relate to the conduct of business actors.[196] The UNWG's statement aligns with landmark judicial findings on the UNGPs and the climate crisis, in the Dutch *Milieudefensie v Royal Dutch Shell* case.[197]

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[191] IACtHR AO OC-23/17 (n90), para. 103; citing to the *Articles on Prevention of transboundary harm from hazardous activities*, adopted by the International Law Commission in 2001 and annexed to UN General Assembly Resolution 62/68 of December 6, 2007, A/RES/62/68.

[192] Report Commission of the Philippines (n167), p. 80; several States in their NAPs have confirmed this understanding of the UNGPs, see e.g.: Switzerland, Swiss National Action Plan 2020–23 (15 January 2020), p. 7, available at: https://www.ohchr.org/sites/default/files/Documents/Issues/Business/NationalPlans/Beilage01PrincipesdirecteursdeONUrelatifsauxentreprisesdroitshomme_Suisse.pdf; Belgium, Plan d'action national Entreprises et Droits de l'Homme (23 June 2017) (French only), p. 6, available at: https://globalnaps.org/wp-content/uploads/2017/11/begium-nap-french.pdf; Chile, National Action Plan on Business and Human Rights Chile (21 August 2017), p. 15, available at: https://globalnaps.org/wp-content/uploads/2017/11/national-action-plan-on-business-and-human-rights.pdf.

[193] IACtHR, *Case of the Kalina and Lokon Peoples v. Suriname*, Merits, Reparations and Costs, Judgement of November 25, 2015, Series C No. 309 (*Kalina and Lokon Peoples v. Suriname)*, para. 224.

[194] Switzerland, Report on the Swiss strategy for the implementation of the UN Guiding Principles on Business and Human Rights (9 December 2016), p. 5, available at: https://www.ohchr.org/sites/default/files/Documents/Issues/Business/NationalPlans/Switzerland_NAP_EN.pdf.

[195] *Kalina and Lokon Peoples v. Suriname* (n193), paras. 223-226; IACtHR, *Case of the Miskito Divers (Lemoth Morris et al.) v. Honduras*, Judgement of 31 August 2021, Case No. 12.738, para. 48.

[196] UN Working Group on the issue of human rights and transnational corporations and other business enterprises, Information Note on Climate Change and the Guiding Principles on Business and Human Rights (June 2023) (Information Note Working Group BHR), available at: https://www.ohchr.org/sites/default/files/documents/issues/business/workinggroupbusiness/Information-Note-Climate-Change-and-UNGPs.pdf.

[197] *Milieudefensie et al. v. Royal Dutch Shell plc.*, Case no. C/09/571932, Hague District Court Judgment of 26 May 2021.

126. The UNWG clarifies that obligations on States to protect against the adverse effects of business activities on human rights, as set out in the UNGPs, include "the duty to protect against foreseeable impacts related to climate change."[198] Notably, failure to "adequately regulate" corporate GHG emissions where the corporations themselves fall under their jurisdiction entails State accountability vis-à-vis rights holders, irrespective of where the emissions or the related harms occur.[199]

127. Requirements on States to regulate business conduct include the obligation to create laws, policies and regulations that ensure that human rights are respected,[200] and to set out the requirements on business actors clearly,[201] addressing elements such as corporate climate change impacts and responsible participation in climate mitigation and adaptation efforts.[202] In addition to general regulation of business enterprises, the UNGPs set out specific obligations on States in their other interactions with businesses: where private actors are State-owned or controlled, or where business enterprises receive substantial support and services from State agencies such as export credit agencies and official investment insurance or guarantee agencies.[203]

128. Obligations of adequate oversight apply where States contract with, or legislate for, business enterprises to provide services that may impact on human rights. Each of the relevant UNGPs has important applications regarding climate change, which have been described by the UNWG and other UN-mandates experts. Pillar I of the UNGPs comprises an indispensable source of State obligations regarding current and future climate human rights impacts, from which specific types of measures flow. More detailed examples on the specific measures are provided under Section IV on "Considerations on the Content of State Obligations" below.

Conclusions Under This Part

129. Effective climate action is not only consistent with but is categorically mandated by the obligations of States to protect life, health, private and family life, home and other fundamental human rights. The significant rise in the last several years of successful human rights complaints challenging States' climate (in)action demonstrate that the applicability of IHRL in the times of climate emergency is assumed as a matter of

[198] Information Note Working Group BHR (n196), para. 7.
[199] Report Commission of the Philippines (n167), p. 109; citing to OHCHR Submission to COP 2015 (n117), para. 3.
[200] Report Commission of the Philippines (n167), p. 65; referencing to: UNGPs, Commentary on Principle 1 (n190).
[201] Information Note Working Group BHR (n196), para. 8(c).
[202] OHCHR Key Messages (n117); OHCHR Submission to COP 2015 (n117), para. 8.
[203] Letter to Saudi Aramco (n83).

practice.[204] The significance of the national and international decisions discussed above cannot be overstated. They are an indication of how other national, regional and international human rights enforcement bodies are likely to approach climate change issues.

130. It is our submission that, read together and in light of considerations such as the effects of every increment of warming and the other points of scientific consensus set out above, States must take a precautionary approach to activities that emit GHGs. The standard to be met is one of due diligence. Given the scientific developments and consensus, this entails rapid reduction of GHG emissions in line with the best available science. Finally, States must also regulate the conduct of business actors, to comply with their duty of prevention and to ensure the effectiveness of the measures taken.

IV. Practical Implications for State Measures

131. The foregoing evidences the clear links between the climate crisis and the human rights obligations on States. The scientific consensus clearly demonstrates the need for rapid global decarbonisation. It has been established that anthropogenic GHG emissions are the main cause of the adverse climate-related impacts on the human rights before you for consideration.

132. The IPCC has confirmed with a "high degree of confidence" that "[e]very increment of global warming will intensify multiple and concurrent hazards."[205] Similarly, the IPCC confirmed in its 2023 assessment that: "[t]here is a rapidly closing window of opportunity to secure a liveable and sustainable future for all (very high confidence)."[206] And that, "[d]eep, rapid, and sustained mitigation and accelerated implementation of adaptation actions in this decade would reduce projected losses and damages for humans and ecosystems (very high confidence)."[207]

133. We therefore submit that the best available science must be considered in the assessment of the law and content of States' human rights obligations, to ensure for the highest levels of protection and full realisation of the right to life and well-being. This is in line with the right to science, which mandates the enjoyment of the benefits of scientific progress, as guaranteed under the Universal Declaration of Human Rights and Article 15 of the International Covenant on Economic, Social and Cultural Rights.

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[204] Joana Setzer & Catherine Higham, "Global Trends in Climate Change Litigation: 2021 snapshot" (2021): 133 cases based on human rights against government (pg. 6); 2023 Report 70% cases against governments on basis of human or constitutional rights (pg. 32), available at: https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/07/Global-trends-in-climate-change-litigation_2021-snapshot.pdf.
[205] IPCC AR6 SYR SPM (n29), para. B.1.
[206] *Ibid*, para. C.1.
[207] *Ibid*, para. C.2.

134. The science also evidences that deep and rapid decarbonisation cannot be replaced by reliance on unproven and/or harmful solutions. States must take a credible and holistic approach to decarbonisation and one that does not rely on uncertain and high-risk solutions.

A. Harmful Reliance on False Solutions that are High-Risk or Unproven

135. There is clear international recognition of the global 'emissions gap' – between current emissions trajectories and emission levels in line with a 1.5°C pathway. It is against this background that many governments and companies have sought to rely on false or high-risk solutions, such as carbon 'offsetting', the large-scale deployment of hydrogen[208] or carbon capture-based technologies,[209] and geoengineering.[210]

136. Two main categories of geoengineering technologies are solar radiation modification (SRM) and carbon dioxide removal (CDR).[211]

137. In relation to SRM technologies, the IPCC has identified "large uncertainties and knowledge gaps as well as substantial risks."[212] SRM measures are therefore not considered in the IPCC pathways.[213]

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[208] "*The IAM scenarios imply a modest role played by hydrogen, with some scenarios featuring higher levels of penetration. The consumption of hydrogen is projected to increase by 2050 and onwards in scenarios likely limiting global warming to 2°C or below, and the median share of hydrogen in total final energy consumption is 2.1% in 2050 and 5.1% in 2100 (Box 12.4, Figure 1) (Numbers are based on the AR6 scenarios database). There is large variety in hydrogen shares, but the values of 10% and more of final energy use that occur in many roadmaps are only rarely reached in the scenarios. Hydrogen is predominantly used in the industry and transportation sectors. In the scenarios, hydrogen is produced mostly by electrolysis and by biomass energy conversion with CCS (Box 12.5, Figure 1). Natural gas with CCS is expected to play only a modest role; here a distinct difference between the roadmaps quoted before and the IAM results is observed.*" In: IPCC, 2022: *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC AR6 WGIII Full Report) [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, Ch12, p. 1315, available at: https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_FullReport.pdf. Though even that modest role may be an overestimate: "*Most models and studies fail to address system impacts of widespread new technology deployment, for example: (i) material and resources needed for hydrogen production or additional emissions and energy required to transport hydrogen; or (ii) materials, resources, grid integration, and generation capacity expansion limits of a largely decarbonised power sector and electrified transport sector. These impacts could limit regional and national scale-ups.*" (*Ibid*, Ch4, p. 442).

[209] "*CO2 capture costs present a key challenge, remaining higher than USD50 tCO2–1 for most technologies and regions; novel technologies could help reduce some costs (high confidence). The capital cost of a coal or gas electricity generation facility with CCS is almost double that of one without CCS (Rubin et al. 2015; Zhai and Rubin 2016; Bui et al. 2018). Additionally, the energy penalty increases the fuel requirement for electricity generation by 13–44%, leading to further cost increases (Table 6.3). … In general, low support has been reported for CCS technologies (Allen and Chatterton 2013; Demski et al. 2017). … CCS requires considerable increases in some resources and chemicals, most notably water. Power plants with CCS could shut down periodically due to water scarcity. In several cases, water withdrawals for CCS are 25–200% higher than plants without CCS (Rosa et al. 2020b; Yang et al. 2020) due to energy penalty and cooling duty."* (*Ibid*, p. 642-643).

[210] Philippe Sands & Kate Cook, "Joint Opinion: The Restriction of Geoengineering under International Law" (26 March 2021) (Sands & Cook), para. 10, available at: https://www.ohchr.org/sites/default/files/2022-06/Annex-SubmissionCIEL-ETC-HBF-TWN-Geoengineering-Opinion.pdf.

[211] IPCC SR 1.5 Full Report (n23), Glossary, p. 544, 558.

[212] IPCC SR 1.5 SPM (n23), para. C.1.4.

[213] Sands & Cook (n210), para. 85, citing IPCC SR 1.5 SPM (n23), para. C.1.4.

138. CDR measures on the other hand are included in some of the IPCC's emissions reductions pathways. CDR "refers to anthropogenic activities that remove CO2 from the atmosphere and store it durably in geological, terrestrial, or ocean reservoirs, or in products."[214] Methods include bioenergy with carbon capture and storage (BECCS), direct air carbon capture and storage (DACCS) and reforestation.[215]

139. Nonetheless, the IPCC has also made clear that broad uncertainty exists in relation to, for example, the "maturity, potentials, costs, risks, co-benefits and trade-offs (high confidence)" of CDR technologies.[216] It has further underlined that: "[m]ost CDR technologies remain largely unproven to date and raise substantial concerns about adverse side-effects on environmental and social sustainability."[217] It warns that "CDR deployed at scale is unproven, and reliance on such technology is a major risk in the ability to limit warming to 1.5°C."[218]

140. For technologies that are unproven at scale, it is also the case that they cannot currently be relied onto have a negative emissions impact, "as they all increase carbon dioxide in the system if the overall emissions produced by constructing and operating the relevant facilities is taken into account."[219]

141. Many of the proposed CDR technologies and solutions thus remain unproven, unavailable, and/or unfeasible at scale. At the same time, they have the potential to "introduce a widespread range of new risks to people and ecosystems, which are not well understood."[220]

142. As stated above, the same considerations apply to reliance on large-scale deployment of hydrogen or carbon capture-based technologies, given the scientific consensus on the challenges, risks and negative impacts that such deployment would present.

143. Ultimately, reliance on such solutions can lead not only to emissions reductions not being realised but simultaneously, also to significant increases in energy and resource use, which in and of themselves can lead to human rights violations and severe environmental

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[214] IPCC AR6 WGIII SPM (n30), para. C.11.1.
[215] ClientEarth *Klimaseniorinnen* Third Party Intervention (n25), para. 21.
[216] Sands & Cook (n210), para. 11; citing to IPCC SR 1.5 SPM (n23), para. C.3.1.
[217] *Ibid.*; citing to IPCC SR 1.5 Full Report (n23), Ch2, p. 121.
[218] Sands & Cook (n210), para. 130; citing to IPCC, "Technical Summary", in: IPCC, 2018: *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, p. 34, available at: https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Technical_Summary.pdf. See also R Stuart-Smith et al., "Legal limits to the use of CO_2 removal", Science 382,772-774 (2023), available at: https://www.science.org/doi/10.1126/science.adi9332.
[219] UN Human Rights Council, Report of the Human Rights Council Advisory Committee, "Impact of new technologies intended for climate protection on the enjoyment of human rights" (A/HRC/54/47) 10 August 2023, para. 10, available at: https://www.ohchr.org/en/hr-bodies/hrc/advisory-committee/impact-of-new-technologies.
[220] *Ibid.*, para. 15, fn. 12; citing to IPCC AR6 SYR Longer Report (n41), p. 37.

harms. These risks have been emphasised by the IPCC in its Sixth Assessment Report; for example, the IPCC explains that:

> "*The specifics of mitigation achievement are crucial, since large-scale deployment of some climate mitigation and land-based CDR [Carbon Dioxide Removal] measures could have deleterious impacts on biodiversity. (…) Scenarios based on demand reductions of energy and land-based production are expected to avoid many such consequences, due to their minimised reliance on BECCS [bioenergy with carbon capture and storage]*."

144. It is also critical in this context that States ensure the protection of human rights and ecosystems when consenting and planning for new infrastructure and projects, whether they are proposed as purported climate solutions or otherwise.

145. Since the hypothetical benefits of these technologies and solutions are still to be practically and/or scientifically proven, they must be considered "speculative."[221] What is however not speculative is the scientific consensus regarding the need for deep and rapid emissions reductions across all sectors.

146. Reliance on unproven and/or potentially harmful technologies and solutions risks undermining the required rapid and deep reductions in GHG emissions.[222] The risks of 'mitigation deterrence' in relation to these technologies and solutions are exacerbated by the well-researched existence of corporate lobbying and media strategies which seek to delay decarbonisation, in particular by the fossil fuel industry.[223]

147. Reliance on such technologies and solutions as purported replacement for "rapid and deep" GHG reductions runs contrary to the precautionary principle and to the best available science. This is particularly so when considering the lack of scientific certainty as well as the examination of such new and emerging technologies from a human rights angle.[224] The precautionary principle requires that States act with caution where human health and/or

[221] A/HRC/54/47 (n219), para. 10; see also CIEL, "Fuel to the Fire: How Geoengineering Threatens to Entrench Fossil Fuels and Accelerate the Climate Crisis" (13 February 2019), available at: https://www.ciel.org/news/fuel-to-the-fire-how-geoengineering-threatens-to-entrench-fossil-fuels-and-accelerate-the-climate-crisis/.
[222] Sands & Cook (n210), para. 5.
[223] IPCC AR6 WGIII Full Report (n208), Ch5, p. 557: "*Business models and strategies work both as a barrier to and an accelerator of decarbonisation. Still existing locked in infrastructures and business models advantages fossil fuel industry over renewable and energy efficient end use industry (Klitkou et al. 2015). The fossil fuel energy generation and delivery system therefore epitomises a barrier to the acceptance and implementation of new and cleaner renewable energy technologies (Kariuki 2018). A good number of corporate agents have attempted to derail climate change mitigation by targeted lobbying and doubt inducing media strategies (Oreskes and Conway 2011). A number of corporations that are involved in both upstream and downstream supply chains of fossil fuel companies make up the majority of organisations opposed to climate action (Dunlap and McCright 2015; Brulle 2019; Cory et al. 2021) corporate advertisement and brand-building strategies also attempt to deflect corporate responsibility to individuals, and/or to appropriate climate care sentiments in their own brand building; climate change mitigation is uniquely framed through choice of products and consumption, avoiding the notion of the political collective action sphere (Doyle 2011; Doyle et al. 2019).*"
[224] A/HRC/54/47 (n219), para. 6.

the environment may be negatively impacted.[225] A human-rights based approach mandates rapid action on mitigation and adaptation, and provides arguments against risk-taking.[226]

148. Similarly, delay or postponement on crucial action may run contrary to considerations of intergenerational rights and the rights of future generations.

149. This approach is supported by State conduct under other environmental agreements. Decisions made under the Convention on Biological Diversity call on States to ensure that in the absence of an "adequate scientific basis" on the risks of geoengineering technologies to the environment, biodiversity, social, economic and cultural rights, no such activities may take place.[227] Similarly, the London Convention and London Protocol also adopt a precautionary approach to geoengineering activities.[228]

150. Commentators have concluded where "there is evidence that the use of such technologies may undermine actions to cut emissions, lock in dependency on fossil fuels and/or have an adverse impact on the protection of sinks and reservoirs, it is strongly arguable that the deployment of such technologies runs counter to the aims and purposes" of the international climate regime, as well as counter to principles of customary international law.[229] We submit that it also runs contrary to IHRL.

151. The existence of State agreement on the potential harms of geoengineering technologies in other environmental fields and the inclusion of the precautionary approach in the absence of scientific certainty must thus also be reflected in relation to similarly speculative and high-risk technologies and solutions aimed at curbing the effects of the climate crisis.[230] This is especially so where the best available science indicates alternative measures with substantial co-benefits that do not present the potential and/or real risks associated with the use of such technologies – i.e. rapid and deep reduction in GHG emissions.

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[225] *Ibid*, para. 36.; *Urgenda*, Supreme Court (n144), para. 7.2.5:"*AR5 does contain new scenarios to achieve by 2050 and 2100 the reductions in greenhouse gas concentrations deemed necessary. These are largely based on the premise that there will not be a sufficient reduction in greenhouse gas emissions and that the concentration of greenhouse gases will therefore have to be reduced by taking measures to remove these gases from the atmosphere (see 2.1(12) above). It is certain, however, that at the moment there is no technology that allows this to take place on a sufficiently large scale. Therefore, as the Court of Appeal held in para. 49, these new scenarios cannot be taken as a starting point for policy at this time without taking irresponsible risks by doing so. Taking such risks would run counter to the precautionary principle that must be observed when applying Articles 2 and 8 ECHR and Article 3(3) UNFCCC (see 5.3.2 and 5.7.3 above).*"

[226] Rupert F. Stuart-Smith et al., "Legal limits to the use of CO2 removal" Science 382, 772-774 (2023), available at: https://www.science.org/doi/10.1126/science.adi9332.

[227] Sands & Cook (n210), para. 15; citing to Decision X/33 adopted by the Conference of the Parties to the Convention on Biological Diversity at its tenth meeting, Biodiversity and Climate Change (29 October 2010), available at: https://www.cbd.int/doc/decisions/cop-10/cop-10-dec-33-en.pdf.

[228] Sands & Cook (n210), para. 25.

[229] Sands & Cook (n210), paras. 92 ff., 106.

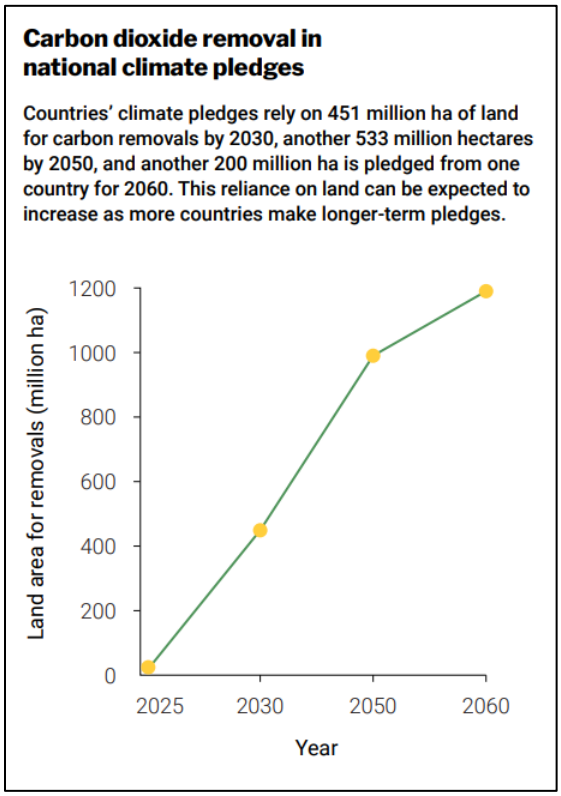
[230] "(...) we *demonstrate that accounting for uncertainty in future CDR deployment provides a strong rationale to increase rates of mitigation in the 2020s. A 20% chance of CDR deployment failure requires additional emissions reduction in 2030 of 3–17 GtCO2":* Neil Grant et al, "Confronting mitigation deterrence in low-carbon scenarios", in: Environmental Research Letters (2021), vol. 16 no. 6, abstract, p. 1.

Offsetting

152. In addition to over-reliance on unproven and risky technologies, the practice of over-reliance on 'offsetting' in place of near-term emissions reductions comprises a further false solution. 'Offsetting' describes the 'net accounting' practice where specific actors (States or corporates) theoretically 'counterbalance' and thus notionally 'compensate' CO_2 emissions by funding land-based carbon sinks/removals. This practice has led to wholly unrealistic demands on land use, which is improperly treated as a substitute for emissions reductions, delaying and undermining urgently necessary climate mitigation.

153. Through over-reliance on such 'offsetting', States and companies have adopted climate mitigation plans which are not only unachievable, but also come at the expense of indispensable near-term emissions reductions, thus exacerbating climate impacts and wasting what the IPCC concludes is a "*rapidly closing window of opportunity to secure a liveable and sustainable future for all (very high confidence).*"[231]

154. At the State level, in their climate mitigation pledges, States massively over-rely on land-based removals to 'net out' emissions – and in place of urgently necessary emissions reductions. The 2022 'Land Gap' report shows in the below chart how States increasingly rely on scaling up land-based removal:[232]



[231] IPCC AR6 SYR SPM (n29), para. C.1.
[232] The Land Gap report was authored by a group of 20 scientists from five continents: Dooley K. et al, "The Land Gap Report 2022" (November 2022) (Land Gap Report 2022), p. 9, available at: https://landgap.org/downloads/2022/Land-Gap-Report_FINAL.pdf.

155. This plan to grow land-based removals is "deeply unrealistic."[233] According to the Land Gap report, "changes in land use proposed in [State] pledges are equivalent to half of global crop land" – and significantly exceeding estimates of available land, already challenged by projected agricultural needs. This unachievable over-reliance on land use change exists because "[f]raming climate targets as 'net zero' risks undermining mitigation action by allowing a trade-off between emissions reductions and removals."[234]

156. Scope for land-based removals is limited, and there is an urgent and far larger need to reduce emissions across all sectors: "[c]urrent 'net accounting' methods assume that planting new trees offsets fossil fuel emissions or the destruction of primary forest, but this ignores scientific and ecological principles." If implemented, State pledges requiring massive land use change will "exacerbate existing social and ecological challenges caused by demand for land", with wide-ranging consequences for the rights of Indigenous Peoples and other land-dependent communities.[235]

157. This over-reliance on offsetting has also led to global trading in offsets. This practice predominantly sees high emitting States and private actors – in an effort to 'cancel out'/offset their emissions – paying low emitting States to maintain certain areas of land which includes promises not to exploit resources. In effect this practice means that high emitters continue not to decarbonise at the expense of lower emitting States and local communities.

158. To make way for governments to create such offsets, Indigenous Peoples and/or local communities have been forced to sell or evacuate their lands, have been told how to manage (ancestral) lands and/or cease agricultural and other economic and cultural activities.[236]

159. Based on the foregoing, we submit that this Court's findings on the extraterritorial scope of the American Convention necessarily extends to the practice of offset trading. Firstly, because it represents a burden shifting from high emitting to low emitting States and a

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[233] *Ibid*, p. 11.
[234] *Ibid*.
[235] IPCC AR6 WGIII SPM (n30), C.11.2: "*afforestation or production of biomass crops for BECCS or biochar, when poorly implemented, can have adverse socio-economic and environmental impacts, including on biodiversity, food and water security, local livelihoods and on the rights of Indigenous Peoples, especially if implemented at large scales and where land tenure is insecure (high confidence*)"; and "*A total 44 out of the 61 reports examined by Carbon Brief found evidence of carbon-offset projects causing harm to Indigenous peoples and local communities. […] Reports examined by Carbon Brief found that Indigenous peoples have been forcibly removed from their land because of carbon-offsetting in the Republic of the Congo, DRC, Kenya, Malaysia and Indonesia, as well as the Brazilian, Colombian and Peruvian Amazon*."; Daisy Dunne et al, " Mapped: The impacts of carbon-offset projects around the world" (20 November 2023), available at: https://interactive.carbonbrief.org/carbon-offsets-2023/mapped.html.
[236] Mateo Estrada, "The Carbon-Offset Market's Broken Promises" Project Syndicate (25 October 2023), available at: https://www.project-syndicate.org/commentary/carbon-offset-market-is-broken-by-mateo-estrada-2023-10; Patrick Greenfield, "Revealed: more than 90% of rainforest carbon offsets by biggest certifier worthless, analysis shows" The Guardian (18 January 2023), available at: https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe.

circumvention of principles of international environmental law; and secondly due to the proven human rights violations occurring in areas designated for offsetting. States are under an obligation to ensure that activities under their jurisdiction do not result in harm elsewhere.

Business Reliance on Offsetting

160. States are not the only actors over-relying on 'net accounting'. At the corporate level, businesses subject to States' jurisdiction and control also rely on similarly problematic 'offsetting', by purchasing 'carbon credits' from forest-based projects or projects which purport to avoid emissions, and treating this as a means of 'compensating' for their emissions. As States are under the obligation to regulate business conduct, this must include considerations on the practice of business reliance on offsetting.

161. In line with the accounting analogy, businesses too often treat this 'compensation' as a functional substitute for emissions reductions, with the result that near-term climate mitigation is avoided. Over-reliance on such 'offsetting' in corporate pledges add yet further unrealistic demands on scarce land to those of States, set out above.

162. Unregulated use of offsets has been identified as one of the key concerns undermining "the integrity of corporate net zero targets" due to widespread unrealistic or excessive dependence on such practices in place of emissions reductions.[237] The corporate Science-Based Target initiative and the UN High Level Expert Group on the Net Zero Commitments of Non-State Actors (UNHLEG) prohibit such business reliance on offsetting in place of near-term action.[238]

163. This fundamentally requires treating land-based removals separately from emissions reduction, to avoid or limit any 'offsetting' of the one against the other. Instead, such practices must be "coupled with the most ambitious reductions in emissions from all sectors" (emphasis added).[239] The UN Secretary-General has also warned about the problem:

[237] Net Zero Tracker, "Net Zero Stocktake 2023: New Climate Institute, Oxford Net Zero, Energy and Climate Intelligence Unit and Data-Driven EnviroLab" (June 2023), p. 22, 23, 49, available at: https://ca1-nzt.edcdn.com/Reports/Net_Zero_Stocktake_2023.pdf?v=1696255114.

[238] The Science-Based Target initiative is a leading global corporate climate targets body. "*Carbon credits do not count as reductions toward meeting science-based targets*.", Science-Based Target, "SBTi CORPORATE NET-ZERO STANDARD" (April 2023), p. 31, available at: https://sciencebasedtargets.org/resources/files/Net-Zero-Standard.pdf. The UNHLEG comprises a global panel of experts tasked by the UN Secretary-General to provide recommendations on corporate commitments. "*Non-state actors must prioritise urgent and deep reduction of emissions across their value chain. High integrity carbon credits in voluntary markets should be used for beyond value chain mitigation but cannot be counted toward a non-state actor's interim emissions reductions",* United Nations' High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities, "Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions" (High-Level Expert Group Net Zero), p. 12, available at: https://www.un.org/sites/un2.un.org/files/high-level_expert_group_n7b.pdf.

[239] Land Gap Report 2022 (n232), p. 11. See also: The IPCC underscores the same point: "*In addition to deep, rapid, and sustained emission reductions CDR can fulfil three different complementary roles globally or at country level…*" (emphasis added). IPCC AR6 WGIII SPM (n30), para. C.11.

"*Shadow markets for carbon credits cannot undermine genuine emission reduction efforts, including in the short term. Targets must be reached through real emissions cuts.*"[240]

164. To fulfil their obligations, States must act to protect, restore and enhance land-based removals (through respecting and strengthening Indigenous Peoples and local community rights)[241] alongside implementing urgent and deep emissions reductions: States must not take a non-feasible approach of over-relying on the land-based removals at the expense of emissions reductions, and in their NDCs should put clear limits on 'net accounting' or 'offsetting' in line with available land constraints in order to ensure this.

165. In order to fulfil their obligations, States must also adequately regulate businesses' climate mitigation, which requires prohibiting corporate reliance on 'offsetting'. As explained above, the UNGPs set out that "*In meeting their duty to protect, States should [e]nforce laws that are aimed at, or have the effect of, requiring business enterprises to respect human rights, and periodically to assess the adequacy of such laws and address any gaps.*"[242]

166. In relation to the climate crisis, the UNGP's UNWG has found that the responsibility to respect human rights requires that business enterprises should "*act to contribute to achieving a just transition to a zero-carbon economy without offsetting*" and should "*[p]hase out both the use of fossil fuels and the production of greenhouse gas emissions, avoid contributing to deforestation, and not use carbon offsets*" (emphasis added).[243] Similarly, the UNHLEG recommends that "*[i]n order to ensure rigour, consistency and competitiveness, regulators should develop regulation and standards in areas including net zero pledges, transition plans and disclosure, starting with high-impact corporate emitters, including private and state-owned enterprises and financial institutions.*"[244]

167. Lack of clear and transparent regulation and standards "[r]isks undermining the commitments and actions of stakeholders who are serious in delivering on their pledges upon joining the global coalition for net zero called for by the Secretary-General; and it enables greenwashing, announcements that lack concrete decarbonization plans, **undue reliance on the use of offsets and potential unrealistic dependence on removals (in lieu of concrete mitigation action) to reduce absolute emissions which is the priority this decade**" (emphasis added).[245] The practice is completely irreconcilable with the obligation to protect human rights and ensure the effectiveness of such protection. In

[240] Secretary-General's remarks at launch of report of High-Level Expert Group on Net-Zero Commitments (8 November 2022), available at: https://www.un.org/sg/en/content/sg/speeches/2022-11-08/secretary-generals-remarks-launch-of-report-of-high-level-expert-group-net-zero-commitments%C2%A0.
[241] "*Evidence shows that indigenous peoples and local communities with secure land rights vastly outperform both governments and private landholders in preventing deforestation, conserving biodiversity, and producing food sustainably*", Land Gap Report 2022 (n232), p. 8.
[242] UNGPs (n190), principle 3.
[243] Information Note Working Group BHR (n196), paras. 19(b), 22.
[244] High-Level Expert Group Net Zero (n238), p. 33.
[245] Ibid., p. 38.

conclusion, State and corporate over-reliance on 'offsetting' comprise a key false solution which obstructs emissions reductions.

B. Considerations on the Content of State Obligations

168. The science on climate change as well as the international legal frameworks and principles discussed above provide guidance to this Court on what might be relevant in determining States' obligations and conduct in relation to the comprehensive protection of human rights in light of the climate emergency.

169. As discussed in depth, the best available science indicates that harmful effects on the realisation and enjoyment of human rights are occurring at current levels of warming, with every increment of warming projected to worsen these effects.

170. We submit that at least the following criteria should be met by States in fulfilling their obligations under the American Convention:[246]

- early action on the rapid reduction of emissions – avoiding the development of loopholes that could allow for delay or reliance on harmful or unreliable practices, including high-risk technologies and offsetting/net accounting;[247]
- a credible long-term emissions trajectory that avoids a disproportionate or impossibly steep future fall in emissions, thereby protecting the rights and freedoms of future generations and taking account of the principle of non-discrimination;
- the phasing out of fossil fuels without reliance on harmful and/or unproven approaches and technologies or offsetting/net accounting;[248]
- the protection of human rights and ecosystems when consenting and planning for new infrastructure and projects, whether they are proposed as purported climate solutions or otherwise;
- credible, specific and effective action, based on binding near-term and long-term targets that are based on the best available science and IHRL and reflect the objectives of the international legal framework to significantly reduce the risk of climate harms,[249] as well as the principles of CBDR-RC and equity;[250]
- a 'whole-systems' approach that recognises the need for action at all levels of government and in all sectors of the economy, and that many actions are interdependent;

[246] ClientEarth *Klimaseniorinnen* Third Party Intervention (n), para. 47; these principles are explained in more detail in ClientEarth's 2021 report "Navigating Net-Zero: Global Lessons in Climate Law-making", available at: https://www.clientearth.org/latest/documents/navigating-net-zero-global-lessons-in-climate-law-making/.
[247] Information Note Working Group BHR (n196), para. 8(e).
[248] *Ibid*, para. 19(b).
[249] CRC/C/GC/26 (n106), para. 71.
[250] Information Note Working Group BHR (n196), para. 15.

- a holistic and coordinated approach to transition and energy planning, based on human rights taking into consideration the special protection obligations that exist in relation to marginalised groups;
- clear frameworks on what is expected of business enterprises domiciled or operating under a State's jurisdiction, including, but not limited to, addressing the entirety of the value chain and requiring comprehensive disclosure by businesses including Scope 1, 2 and 3 emissions;[251]
- independent expert advisory bodies to allow for effective scrutiny of the adequacy of targets and progress and inclusion of Indigenous and other voices;
- transparency regarding the negotiation, development and implementation of government plans and progress on climate change, to allow for civil society participation and scrutiny with a clear allocation of responsibilities within government to allow for accountability (including legal accountability through recourse to the courts for rights-holders);[252]
- the safety and protection of environmental defenders, particularly where they contribute to the development of such frameworks;[253]
- reflection of the right to free, prior and informed consent of Indigenous Peoples and/or local communities in all aspects of law and policy that affect the environmental and human rights of their communities and beyond.[254] This includes consideration of mitigation measures such as the designation of lands as protected areas, or the expansion of renewable energies;[255]
- collaboration and cooperation with other States to collectively address climate change, in reflection of CBDR-RC, thereby ensuring that adaptation capacity is built for developing countries and small islands states, technology is transferred, and funding is provided.[256]

V. Conclusion

171. International (human rights) law is clear: insufficient action and progress on limiting global warming may violate fundamental human rights. States are therefore under an obligation to minimise adverse impacts on the realisation and enjoyment of human rights, such impacts include the adverse consequences of climate change.

[251] *Ibid*, paras. 8(d), (e), 17(d).
[252] *Ibid*, para. 24.
[253] Committee on the Elimination of Discrimination against Women, 'General Comment No. 39 (2022) on the rights of Indigenous women and girls', UN Doc. CEDAW/C/GC/39, para. 60.
[254] Information Note Working Group BHR (n196), para. 17(e).
[255] CEDAW/C/GC/39 (n253), paras. 45, 61; Information Note Working Group BHR (n196), para. 8(g).
[256] Information Note Working Group BHR (n196), para. 14.

172. Accordingly, IHRL requires that rapid and effective GHG emissions reductions must occur and must be prioritised, to foster the full enjoyment and realisation of rights and ensure that no irreversible damage to nature occurs.[257] States' action on global climate change must be comprehensive, effective and based on the best available science to limit further warming that is currently already causing detrimental effects to human life and well-being.

173. This is also mandated by the right to science – not acting in line with the best available science and ensuring that the benefits of scientific development in relation to climate harms can be enjoyed, risks violation.

174. The evidence on the role of the so called 'Carbon Majors' is also unequivocal. It is due to their significant contributions to the climate crisis, and the requirement on States to ensure the effectiveness of human rights protection, that States are also under an obligation to regulate business conduct. If States do not address business conduct, the effectiveness of human rights protection from climate harms is undermined.

175. The evidence provides the need for the phasing out of fossil fuels. This means deep, rapid and immediate decarbonisation and the avoidance of reliance on harmful and/or unproven technologies and solutions.

[257] CRC/C/GC/26 (n106), para. 98(e).