

EUROPEAN COURT OF HUMAN RIGHTS

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Application No 39371/20

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Duarte Agostinho et al  
v  
Portugal et al

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INTERVENERS BRIEF FILED BY THE CENTER FOR INTERNATIONAL  
ENVIRONMENTAL LAW, GREENPEACE INTERNATIONAL AND THE UNION OF  
CONCERNED SCIENTISTS  
(Filed pursuant to leave granted by the Grand Chamber on 24 October 2022)

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*Representatives on the Brief*

**Nikki Reisch**

Director, Climate & Energy Program

**Sébastien Duyck**

**Erika Lennon**

**Tamara Morgenthau**

Senior Attorneys – Climate and Energy Program  
CENTER FOR INTERNATIONAL ENVIRONMENTAL LAW  
15, rue des Savoises  
CH-1205 Geneva, Switzerland

**Kristin Casper**

General Counsel

**Louise Fournier**

**Maria Alejandra Serra Barney**

**Amrekha Sharma**

Legal Counsel - Climate Justice and Liability  
GREENPEACE INTERNATIONAL  
Surinameplein 118  
1058GV Amsterdam, the Netherlands

**L. Delta Merner**

Lead Scientist

**Kristina Dahl**

**Rachel Licker**

Principal Climate Scientists

**Shaina Sadai**

Hitz Fellow

UNION OF CONCERNED SCIENTISTS  
1825 K Street NW, Suite 800  
Washington DC 20006-1232, United States

## I. Introduction

1. Climate change constitutes one “of the most pressing and serious threats to the ability of present and future generations to effectively enjoy all human rights.”<sup>1</sup> Under the European Convention on Human Rights (“the Convention”), States must take all necessary and appropriate measures to protect individuals from such foreseeable threats.<sup>2</sup> The content of this Convention obligation and the measures States must take should be interpreted in light of public international law,<sup>3</sup> the best available science,<sup>4</sup> “the consensus emerging from specialised international instruments,”<sup>5</sup> and “commonly accepted standards”<sup>6</sup> in the Contracting States, which constitute a “common ground in modern societies”<sup>7</sup> on climate change.

2. Courts in Europe have recognized that common ground can be found in the United Nations Framework Convention on Climate Change (UNFCCC),<sup>8</sup> the Paris Agreement,<sup>9</sup> the reports of the Intergovernmental Panel on Climate Change (IPCC), key findings of which the IPCC’s 195 Member States endorse by consensus,<sup>10</sup> the precautionary principle, and the principle of intergenerational equity.<sup>11</sup> Together, these sources reflect a politically endorsed scientific consensus that “dangerous anthropogenic interference with the climate system”<sup>12</sup> is being experienced at current levels of warming, and that risks increase significantly at warming of 1.5°C or higher above pre-industrial levels. To be consistent with Convention duties, States must reduce emissions to keep temperature rise below 1.5°C.

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<sup>1</sup> G.A. Res. 76/300 (July 28, 2022); *accord* U.N. Human Rights Comm., General Comment No. 36, U.N. Doc. CCPR/C/GC/36, para. 62 (2019) [HRC, General Comment No. 36].

<sup>2</sup> *Öneryıldız v. Turkey* [GC], no. 48939/99, para. 101 (2004); *Kolyadenko and Others v. Russia*, no. 17423/05, para. 212 (2012); *Taşkın and Others v. Turkey*, no. 46117/99, para. 113 (2004).

<sup>3</sup> United Nations, *Vienna Convention on the Law of Treaties* art. 31(3)(c), 23 May 1969, 1155 U.N.T.S. 33.

<sup>4</sup> The Court has referred to science in interpreting Convention obligations. *See, e.g., Rees v. The United Kingdom*, no. 9532/81, para. 47 (1986); *Cossey v. The United Kingdom*, no. 10843/84, para. 40 (1990); *Fretté v. France*, no. 36515/97, para. 42 (2002); *cf. Oluić v. Croatia*, no. 61260/08, paras. 29-31 (2010). *See also Urgenda v. The Netherlands* (2019), Supreme Court of the Netherlands, ECLI:NL:HR:2019:2007, para. 5.4.3 (“According to ECtHR case law, an interpretation and application of the ECHR must also take scientific insights and generally accepted standards into account.”). The best available science includes, but is not limited to, the reports of the Intergovernmental Panel on Climate Change. *See Thomson v. Minister for Climate Change Issues*, [2018] 2 NZLR 160, paras. 89-91, 93-94 (Nov. 2, 2017) (New Zealand); *Milieudefensie et al v. Royal Dutch Shell*, District Court of the Hague, case no. C/09/571932 / HA ZA 19-379, para. 4.4.27 (May 26, 2021) (Netherlands) (English translation).

<sup>5</sup> *Demir and Baykara v. Turkey* [GC], no. 34503/97, para. 85 (2008).

<sup>6</sup> *Tyrer v. The United Kingdom*, no. 5856/72, para. 31 (1978).

<sup>7</sup> *Demir and Baykara*, at para. 86.

<sup>8</sup> *United Nations Framework Convention on Climate Change*, May 9, 1992, 1771 U.N.T.S. 107 [UNFCCC].

<sup>9</sup> *Paris Agreement to the United Nations Framework Convention on Climate Change*, Dec. 12, 2015, T.I.A.S. No. 16-1104 [Paris Agreement].

<sup>10</sup> Intergovernmental Panel on Climate Change [IPCC], *Appendix A to the Principles Governing IPCC Work: Procedures for the Preparation, Review, Acceptance, Adoption, Approval and Publication of IPCC Reports*, p. 9 (2013); *see also* IPCC, *IPCC Factsheet: How does the IPCC approve reports?* (2013).

<sup>11</sup> *See Urgenda*, paras. 5.2.2, 5.6.2, 5.7.7 - 5.7.9, 7.5.1; *Neubauer et al. v. Germany*, Federal Constitutional Tribunal, paras. 101, 149, 175, 178, 202-04 (Apr. 29, 2021); *see also Notre Affaire à Tous and Others v. France*, Paris Administrative Tribunal (4th section, 1st chamber), paras. 31, 34 (Feb. 3, 2021).

<sup>12</sup> UNFCCC, at art. 2.

3. We are in a state of crisis. Due largely to rising emissions caused by the extraction and combustion of fossil fuels,<sup>13</sup> the concentration of greenhouse gases in the atmosphere has risen to its highest level in at least 800,000 years.<sup>14</sup> Warming has increased the current average global temperature to 1.09 [0.95 to 1.20]°C above the pre-industrial average.<sup>15</sup> Already at 1°C, the IPCC warned that the world was experiencing forms of extreme weather that claim lives and destroy property and homes.<sup>16</sup> As elaborated below, the best available science shows that without immediate, drastic emissions reductions, continued warming will surpass 1.5°C, resulting in dramatically more severe and potentially irreversible impacts.

4. This brief first sets out the present understanding of the impacts at current levels of warming, the increased grave risk posed by warming over 1.5°C, and the measures required to avert that risk. It then examines how this politically endorsed scientific consensus should inform the interpretation of States' obligations under the Convention to "do everything in their power to protect the applicants' rights."<sup>17</sup> In light of the Court's decisions and the imperative to keep warming below 1.5°C, the onus is on the State to explain how the measures it adopts and implements are consistent with this limit and comply with the Convention.

## II. The politically endorsed scientific consensus on the impacts of climate change mandates keeping global warming below 1.5°C.

5. **States have recognised that the actions required to avert the most dangerous climate change must reflect the latest science.** The Parties to the UNFCCC agreed for the first time in 2010 that achieving the UNFCCC's ultimate objective of "prevent[ing] dangerous anthropogenic interference with the climate system"<sup>18</sup> requires keeping average warming to an agreed long-term temperature goal (LTTG) in line with the best available scientific knowledge.<sup>19</sup>

6. **The Paris Agreement set the LTTG to "well below 2°C" and to "pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change."**<sup>20</sup> Reaffirming the

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<sup>13</sup> IPCC, *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Summary for Policy Makers (SPM)*, p. 5 (2014) [IPCC AR5]; IPCC, *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, p. 676 (2021) [IPCC AR6 WGI]; Heede, R., *Tracing Anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers*, 122 *Climatic Change* 229 (2014); United Nations Environment Programme, *Emissions Gap Report 2021: The Heat Is On – A World of Climate Promises Not Yet Delivered* (2021).

<sup>14</sup> IPCC, *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*, Ch. 1, Box 1.1 (2018) [IPCC 1.5SR]; IPCC, AR5, SPM, 1.2; *see also* IPCC, AR6 WGI, SPM, A.2.1.

<sup>15</sup> *See* IPCC, AR6 WGI, SPM, A.1.2 (these values are for the 2011–2020 average as compared to 1850–1900 with the numbers in brackets representing the 90% confidence interval).

<sup>16</sup> *See* IPCC, 1.5SR, SPM, A.1-A..3.; IPCC, *Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, SPM, B.1.6 (2022) [IPCC AR6 WGII].

<sup>17</sup> *Kolyadenko and Others*, at para. 216.

<sup>18</sup> UNFCCC, at art. 2.

<sup>19</sup> UNFCCC, *Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010*, Decision 1/CP.16, para. 4, FCCC/CP/2010/7/Add.1 (2011) [Cancun Agreement].

<sup>20</sup> Paris Agreement, at art. 2.1(a).

need to base their climate action on the best available scientific knowledge,<sup>21</sup> the Parties invited the IPCC to provide a special report on the impacts of global warming of 1.5°C (“1.5SR”).<sup>22</sup>

7. **States have demonstrated their political endorsement of the IPCC’s findings on the dangers of 1.5°C warming.** In 2018, all 195 IPCC Member States approved by consensus the Summary for Policymakers of the 1.5SR.<sup>23</sup> In doing so, States gained actual and constructive knowledge of the impacts of global warming of 1.5°C on their populations and the need for swift, deep reductions in greenhouse gas (GHG) emissions worldwide to keep warming below 1.5°C. In addition to being recognised in Council of Europe Member States’ domestic policies and at the EU level,<sup>24</sup> the danger of exceeding 1.5°C has been recognised by domestic courts in Europe.<sup>25</sup> Subsequent IPCC reports reinforce these findings, affirming that climate goals, read in light of best available science, require keeping warming below 1.5°C.

*Science affirms the imperative to keep warming below 1.5°C.*

8. **1.5°C is not safe.** The IPCC’s 1.5SR explicitly states that “warming 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),” especially for “disadvantaged and vulnerable populations.”<sup>26</sup> The IPCC Sixth Assessment Report (“AR6”) similarly states that “reaching 1.5°C in the near-term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans.”<sup>27</sup> The reports make clear that society at large will experience significantly greater “climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth” at 1.5°C warming.<sup>28</sup> These findings confirm that 1.5°C by no means “guarantees full protection from dangerous anthropogenic interference.”<sup>29</sup>

9. **Current impacts of climate change are already threatening rights.** The IPCC 1.5SR and subsequent AR6 reports document how observed changes in our climate are already endangering individuals and communities. Across the globe, changes in Earth’s climate are

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<sup>21</sup> *Ibid.* at preamble, art. 4.1 (preamble: “Recognizing the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge”).

<sup>22</sup> UNFCCC, *Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015*, Decision 1/CP.21 Adoption of the Paris Agreement, para. 21, FCCC/CP/2015/10/Add.1 (2016).

<sup>23</sup> IPCC, Press release 2018/24/PR, “Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments” (Oct. 2018), <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/>.

<sup>24</sup> See Commission Communication COM/2018/0773, “A Clean Planet for all – A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy”, 28 Nov. 2018; Resolution 2019/2582/RSP of the European Parliament of 14 Mar. 2019; Resolution 2019/2956/RSP of the European Parliament of 15 Jan. 2020.

<sup>25</sup> *Urgenda*, at para. 2.1; *Notre Affaire à Tous and Others*, para. 16; *Milieudefensie*, at para 2.3.3; *Klimatická žaloba ČR v. Czech Republic*, Prague Municipal Court, para. 199 (2002).

<sup>26</sup> IPCC, 1.5SR, Technical Summary (TS), p. 44, Ch. 5, p. 447.

<sup>27</sup> IPCC, AR6 WGII, SPM, B.3; see also *ibid* at p.vii (“The assessment underscores the importance of limiting global warming to 1.5°C if we are to achieve a fair, equitable and sustainable world.”), TS, C.1.2.

<sup>28</sup> IPCC, 1.5SR, SPM, B.5; see also IPCC, AR6 WGII, SPM, B.5.2, B.3, TS, Table TS.1. *Cf ibid.* at TS C.1.2.

<sup>29</sup> *Report on the structured expert dialogue on the 2013–2015 review*, FCCC/SB/2015/INF.1, paras. 40, 46 (message 5), 115 (message 10), 117 (2015).

putting communities at risk and threatening basic human needs, such as health, food, water, and human security.<sup>30</sup> More frequent extreme heat, powerful tropical cyclones, and heavy precipitation threaten lives.<sup>31</sup> Water cycle changes are affecting the quantity and quality of water resources available in many regions.<sup>32</sup> Climate change is also jeopardising human physical and mental health.<sup>33</sup> For example, in 2017, climate change-fuelled wildfires in Portugal burned a record area of land, 520,000 hectares,<sup>34</sup> and led to more than 120 deaths as well as thousands of hospital admissions resulting from the adverse health impacts of particulate matter generated by the fires.<sup>35</sup> Europe is warming faster than the global average, resulting in high levels of heat stress and elevated wildfire risk.<sup>36</sup> Heat-related mortality in Europe has also broken records in recent years, claiming thousands of lives.<sup>37</sup> In Portugal, between 0.61% and 1.14% of all deaths are caused by extreme heatwaves.<sup>38</sup>

**10. Warming over 1.5°C magnifies existing harms.** IPCC reports highlight key risks for Europe with temperatures exceeding 1.5°C including increased heat-related mortality, drought and heat-induced agricultural losses, water scarcity, and flooding. Warming above 1.5°C increases the risks to life, health, liberty, property, and essential human needs worldwide, with more substantial impacts at 2°C than 1.5°C.<sup>39</sup> At 2°C warming, 420 million more people risk exposure to extreme heat than at 1.5°C, and the risks resulting from vector-borne diseases are

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<sup>30</sup> IPCC, 1.5SR, SPM, B.5; IPCC, AR6 WGII, SPM, B.1- B.1.7

<sup>31</sup> IPCC, *Special Report on the Ocean and Cryosphere in a Changing Climate*, SPM, pp.10-11, 16 (2019); IPCC, 1.5SR, Ch. 3, 3.3.2-3.3.3, 3.4.6; IPCC, AR6 WGII, SPM, A.3.

<sup>32</sup> IPCC, 1.5SR, Ch. 3, 3.4.2; Stagge, H. *et al.*, *Observed drought indices show increasing divergence across Europe*, *Sci. Rep.* 7 (2017); *see* IPCC, AR6 WGII, Ch.4.

<sup>33</sup> IPCC, AR6 WGII, SPM, B.1.4, B.4.4, B.5.1, Figs. SPM.1, SPM.2 SPM.3, SPM.4; *see also* IPCC, AR6 WGII, Chs. 7, 13 (adverse impacts to health in Europe include heat stress and mortality, climate-sensitive infectious diseases, mental health impacts from extreme events, and impacts to air quality *see* section 13.7.1); World Health Organization *Mental health and climate change: policy brief* <https://www.who.int/publications/i/item/9789240045125>; Report of the Special Rapporteur on the promotion and protection of human rights in context of climate change, Promotion and protection of human rights in the context of climate change mitigation, loss and damage and participation, U.N. Doc. A/77/226, para. 28 (2022) [SR on Climate Change report].

<sup>34</sup> Giglio, L. *et al.*, Monthly MODIS Burned Area Product (MCD64A1 v006) (2018), accessed from Global Forest Watch (*Portugal Deforestation Rates and Statistics*), <https://gfw.global/3Eik6Pe>.

<sup>35</sup> Turco, M. *et al.*, *Climate drivers of the 2017 devastating fires in Portugal*, *Sci. Rep.* 9 (2019); Oliveira, M *et al.*, *Environmental Particulate Matter Levels during 2017 Large Forest Fires and Megafires in the Center Region of Portugal: A Public Health Concern?*, 17(3) *Int'l J. Environ. Res. & Public Health* 1032 (2020), <https://doi.org/10.3390/ijerph17031032>.

<sup>36</sup> Rousi, E. *et al.* *Accelerated western European heatwave trends linked to more-persistent double jets over Eurasia*, 13 *Nat Commun* 3851 (2022), <https://doi.org/10.1038/s41467-022-31432-y>; European Commission, Joint Research Centre, San-Miguel-Ayanz, J. *et al.*, *Advance report on wildfires in Europe, Middle East and North Africa 2021*, Publications Office of the European Union (2022), <https://data.europa.eu/doi/10.2760/039729>; European State of the Climate 2021, <https://climate.copernicus.eu/esotc/2021/heat-and-cold-stress>.

<sup>37</sup> Stott, P., Stone, D. & Allen, M., *Human contribution to the European heatwave of 2003*, 432 *Nature*, pp. 610–14 (2004); van Oldenborgh, G.J. *et al.*, *Western Europe is warming much faster than expected*, 5 *Clim. Past*, pp. 1–12 (2009); Larson, J., *Record Heat Wave in Europe Takes 35,000 Lives: Far Greater Losses May Lie Ahead* (Oct. 9, 2003), [http://www.earth-policy.org/index.php/plan\\_b\\_updates/2003/update29](http://www.earth-policy.org/index.php/plan_b_updates/2003/update29); van Oldenborgh, G.J. *et al.*, *Human contribution to the record-breaking June 2019 heat wave in France*, *World Weather Attribution* (2019); *see also* IPCC, AR6 WGII, Ch. 13, 13.7.1.1.

<sup>38</sup> Merte, S., *Estimating heat wave-related mortality in Europe using singular spectrum analysis*, 142(3) *Climatic Change* 321 (2017).

<sup>39</sup> IPCC, AR6 WGII, SPM, B.1-B.1.7, B.3-B.3.3, D.1.1, TS C.1.1- C.1.2; IPCC, 1.5SR, SPM, B.5.2.

higher.<sup>40</sup> The change in wildfire risk between 1.5 and 2°C is particularly high in the Mediterranean region, while the potential for adaptation is low.<sup>41</sup>

**11. Warming above 1.5°C runs the risk of triggering irreversible, catastrophic impacts.**<sup>42</sup> Overshooting 1.5°C even temporarily could result in large risks to natural and human systems that are potentially irreversible.<sup>43</sup> In addition, warming between 1.5°C and 2°C<sup>44</sup> can result in dramatic changes in the functioning of Earth systems known as “tipping points.”<sup>45</sup> The crossing of tipping points in one system can increase the risk of crossing them in others,<sup>46</sup> causing what is known as a “cascade effect.” Resulting impacts would affect multiple regions in the near- and far-term.<sup>47</sup>

*Science indicates which measures are most likely to keep warming below 1.5°C.*

**12. Emissions reduction measures must be ambitious and near-term.** Significant transformations must be made urgently *this decade* to increase the probability of keeping warming below 1.5°C. Limiting warming to 1.5°C requires global CO<sub>2</sub> emissions to decrease by approximately 48% from 2019 levels by 2030 and reach net zero around 2050, alongside similar reductions in non-CO<sub>2</sub> greenhouse gases.<sup>48</sup> Among various scenarios for achieving those reductions, the IPCC AR6 report finds that the emissions reduction pathways that limit warming to 1.5°C with little or no overshoot (the “C1” pathways) rely on near-term emissions reductions achieved through a rapid phase-out of fossil fuels.<sup>49</sup> “The ‘committed’ emissions from existing fossil-fuel infrastructure may consume all the remaining carbon budget in the 1.5°C scenario.”<sup>50</sup> If the current pace of emissions continues, the global average temperature will likely reach 1.5°C above pre-industrial levels by 2040, with warming continuing beyond that point.<sup>51</sup> “Without early retirements, or reductions in utilization, the current fossil infrastructure will emit more GHGs than is compatible with limiting warming to 1.5°C.”<sup>52</sup> Failing to make near-term reductions requires more dramatic reductions later, with potentially severe social costs.<sup>53</sup>

**13. Emission reduction measures must be effective and reliable.** Immediate and large-scale emissions reductions resulting from increases in energy efficiency and the replacement of fossil fuels with renewable energy are the most critical component of any pathway that

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<sup>40</sup> IPCC, 1.5SR, Ch. 3, 3.3.2.2; IPCC, 1.5SR, SPM, B.5.2.

<sup>41</sup> IPCC 1.5SR, Table 3.5.

<sup>42</sup> *Ibid.* at para. 3.5.2.5; IPCC AR5, TS, Box. TFE.5.

<sup>43</sup> IPCC, 1.5SR, Ch. 3, Cross-Chapter Box 8, SPM A.3.2; IPCC, AR6 WGII, SPM, B.6.1, TS, TS.C.2.5, TS.C.13.1.

<sup>44</sup> IPCC, 1.5SR, SPM, A.3.2, B.2.2, B.4.2.

<sup>45</sup> IPCC, 1.5SR, Ch. 3, 3.5.5; IPCC, AR6 WG II, SPM, B.5.2, TS.C.13.2, Table TS.1.

<sup>46</sup> Lenton, T. *et al.*, “Climate tipping points too risky to bet against”, 575 Nature 592, 592, 594 (Nov. 28, 2019).

<sup>47</sup> *Ibid.*

<sup>48</sup> See IPCC, AR6 WGIII, SPM, C.1.2, Table SPM.2; *see also* IPCC, AR6 WGIII, Ch. 3, 3.3.

<sup>49</sup> See IPCC, AR6 WGIII, Ch. 3, 3.2, SPM, C.2-C.4, fig. SPM.5. Cf. SEI, IISD, ODI, E3G; UNEP, *The Production Gap Report 2021*, pp. 4, 12, 14-15 (Oct. 2021) (relying on the 1.5SR report and concluding that a 1.5C consistent pathway requires an immediate and steep decline in fossil fuel production) [Production Gap Report 2021].

<sup>50</sup> IPCC, AR6 WGIII, Ch. 17, sec. 17.5.

<sup>51</sup> IPCC, AR6 WGI, SPM, B.1.3, Table SPM.1.

<sup>52</sup> IPCC, AR6 WGIII, TS, Box. TS.8; *see also* IPCC, AR6 WGIII, SPM, SPM B.7.1, Ch. 17, 17.5.

<sup>53</sup> IPCC 1.5SR, SPM, D.1.3; IPCC, 1.5SR, Ch. 2, 2.3.5; IPCC, 1.5SR, Ch. 5, 5.4.2; *see also* IPCC 1.5SR, Ch. 3, Cross-Chapter Box 8.

aims to limit global warming.<sup>54</sup> While pathways that limit warming to 1.5°C involve a limited amount of carbon dioxide removal (CDR),<sup>55</sup> the IPCC is also clear that “CDR cannot serve as a substitute for deep emissions reductions.”<sup>56</sup> Further, CDR technologies “are uncertain and entail clear risks,”<sup>57</sup> and there are concerns that their large-scale deployment could “obstruct near-term emission reduction efforts.”<sup>58</sup> Similarly, the IPCC finds that among the measures that could reduce emissions by 2030, the potential contribution of carbon capture and storage (CCS) is low while its costs are very high,<sup>59</sup> and it could prolong reliance on fossil fuels.<sup>60</sup> Furthermore, rates of CCS deployment are currently below what would be needed to limit warming to 1.5°C or 2.0°C and there are significant barriers to its implementation.<sup>61</sup>

**14. Delayed measures that presume the ability to overshoot 1.5°C and return, risk irreversible harm.** Pathways with reliance on technological CDR tend to increase the risks of overshoot without any assurance that it can be reversed on a timeline that avoids significant impacts, if at all.<sup>62</sup> The IPCC reports recognize that CDR may introduce significant risks and unintended consequences for human and natural systems, exacerbating the impacts of warming and undermining adaptation.<sup>63</sup> Technological CDR may pose significant environmental and social risks, including impacts on “food security, biodiversity or land rights,”<sup>64</sup> which threaten human rights.

**15. Measures must be comprehensive and economy-wide.** The deep emissions reductions needed to keep the global temperature increase below 1.5°C will require action across all sectors that contribute emissions, including major transformations in energy production, food systems, land use, and consumption patterns.<sup>65</sup> Adhering to a 1.5°C pathway would involve fully transitioning the power sector to non-fossil fuel sources (i.e., from coal, oil, and gas to carbon-free energy sources such as solar and wind) by no later than mid-century.<sup>66</sup>

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<sup>54</sup> IPCC, AR6 WGIII, Fig. 3.7.

<sup>55</sup> IPCC, AR6 WGIII, SPM, Table SPM.2 and C.2.1.

<sup>56</sup> IPCC, AR6 WGIII, Ch.12, Cross-Chapter Box 8, 12.3.

<sup>57</sup> IPCC, 1.5SR, Ch. 2, p. 95; *see also* IPCC, AR6 WG II, SPM B.5.4, B.5.5, TS.C.11.10; IPCC, AR6 WGIII, Ch. 3, 3.3.2.23-36; IPCC, AR6 WGIII, SPM C.11, C.11.1, C.11.2.

<sup>58</sup> IPCC, AR6 WGIII, Ch. 12, 12.3.

<sup>59</sup> IPCC, AR6 WGIII, SPM Fig. 7.

<sup>60</sup> IPCC, AR6 WGIII, SPM, C.4.4, TS 5.1; *see also* Ch. 6, 6.7.4.

<sup>61</sup> IPCC AR6 WGIII, SPM, C.4.6 (“Implementation of CCS currently faces technological, economic, institutional, ecological-environmental and socio-cultural barriers. Currently, global rates of CCS deployment are far below those in modelled pathways limiting global warming to 1.5°C or 2°C”); Ch. 4, 4-44 - 4.45; *see also* Ch. 6, 6.4.2.5.

<sup>62</sup> IPCC, AR6 WGIII, Ch. 12, 12.3; IPCC, AR6 WGI, Ch. 4, 4.6.3.2; IPCC, 1.5SR, Ch. 2, 2.3.4, 2.4.2.3, Ch. 4, p. 316 (“Most CDR options face multiple feasibility constraints, which differ between options, limiting the potential for any single option to sustainably achieve the large-scale deployment required in the 1.5°C-consistent pathways described in Chapter 2 (high confidence).”).

<sup>63</sup> IPCC, AR6 WGII, SPM, B.5.4-B.5.5, TS.C.11.10.

<sup>64</sup> IPCC, AR6 WGIII, Ch. 12, 12.3; *see also* IPCC 1.5SR, SPM, C.3.4, Ch. 2, 2.3.4, Ch. 4, Table 4.13, FAQ 4.2; IPCC, Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems, 5.6, 6.2 (2019).

<sup>65</sup> IPCC, 1.5SR, SPM, C.2; *see also* IPCC, AR6 WGIII, SPM, C.4-C.10, fig. SPM.7.

<sup>66</sup> IPCC, 1.5SR, Ch. 2, 2.3.2.1; *see also* IPCC 1.5SR, SPM, fig. SPM.3b; IPCC, AR6 WGIII, 17.3.2.2, 17.5.

16. **States' current climate commitments are insufficient.** To date, governments' Nationally Determined Contributions (NDCs) to global GHG reductions are insufficient to keep warming below 1.5°C and planned fossil fuel production is inconsistent with 1.5°C pathways.<sup>67</sup> The latest analyses show that, even if States fully implemented the pledges submitted to date, the average global temperature would reach 2.5-2.8°C above pre-industrial levels this century.<sup>68</sup>

### III. State action on climate change must be assessed against human rights law standards.

17. **Fulfilment of a State's obligations under the UNFCCC or Paris Agreement is necessary but may not be sufficient to satisfy its Convention obligations.**<sup>69</sup> The references to existing public international law in the preamble to the UNFCCC and to human rights obligations in the preamble to the Paris Agreement reaffirm that the agreements were created to complement, not displace, existing principles of international law.<sup>70</sup>

18. **States must adopt measures necessary to safeguard life and other human rights.** In line with the Court's jurisprudence and given Respondent States' knowledge of the real and immediate risk that climate change poses to human rights, including the right to life, they must "do everything in their power"<sup>71</sup> to "safeguard life" from the foreseeable threat of dangerous levels of warming, including by "put[ting] in place a legislative and administrative framework designed to provide effective deterrence against threats to the right to life."<sup>72</sup> States must pursue preventive measures "necessary and sufficient to protect" individuals, which have a reliable prospect of mitigating the risk of harm to the right to life and other rights.<sup>73</sup> Other adjudicatory bodies have applied this standard when interpreting the scope of State human rights obligations in the context of climate change.<sup>74</sup> The requisite preventive measures must address all actors and conduct subject to the State's jurisdiction and control that contribute to the threat, both public and private, domestic and extraterritorial.<sup>75</sup>

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<sup>67</sup> IPCC, AR6 WGIII, SPM, B.6; *see also* Production Gap Report 2021, pp. 16-24.

<sup>68</sup> United Nations Environment Programme, *Emissions Gap Report 2022*, p. XXI (2022); *see also* UNFCCC, *Nationally determined contributions under the Paris Agreement, Synthesis report by the secretariat*, FCCC/PA/CMA/2022/4 (Oct. 26, 2022).

<sup>69</sup> *See* Comm. on Econ., Soc. & Cultural Rights (CESCR), *Climate Change and the International Covenant on Economic, Social and Cultural Rights*, para. 3 (Oct. 8, 2018).

<sup>70</sup> UNFCCC, preamble; Paris Agreement, preamble; *see also* UNFCCC, COP 27, Decisions 1/CP.27 and 1/CMA.4, at preamble (2022) [Sharm el-Sheikh Implementation Plan].

<sup>71</sup> *Kolyadenko and Others*, at para. 216; *see also* Öneriyıldız, at para 135.

<sup>72</sup> *Kolyadenko and Others*, at para. 157 (citing Öneriyıldız, at para. 89 and *Budayeva and Others v. Russia*, nos. 15339/02, 21166/02, 20058/02, 11673/02, 15343/02, para. 129 (2008)).

<sup>73</sup> Öneriyıldız, at para. 101; *Kılıç v. Turkey*, no. 22492/93, paras. 76-77 (2000).

<sup>74</sup> *See* Advisory Opinion OC-23/18, Inter-Am. Ct. H.R. (ser. A) No. 23, paras. 108-09, 118, 142, 149, 242(b) (Nov. 15, 2017); *Urgenda*, at paras. 5.2.2-5.2.4, 5.3.2; *Neubauer et al.*, at para. 144; *Generaciones Futuras v. Minambiente*, Supreme Court of Colombia, STC. 4360-2018, para. 11.3 (Apr. 5, 2018); *see also* *Daniel Billy et al v. Australia*, Human Rights Committee, CCPR/C/135/D/3624/2019, para. 8.3, 8.9.

<sup>75</sup> *Budayeva and Others*, at paras. 128, 130; Öneriyıldız, at para. 71; *Ilascu and Others v. Moldova and Russia*, no. 48787/99, para. 317 (2004); *see also* Advisory Opinion OC-23/18, at para. 81; CESCR, General Comment No. 24 (2017) on State obligations under the International Covenant on Economic, Social and Cultural Rights in the context of business activities, U.N. Doc. E/C.12/GC/24, paras. 26-28 (2017) [CESCR, General Comment No. 24]; HRC, General Comment No. 36, at para. 22.



19. **A State must do everything in its power to deter the threat of harm even if it cannot eliminate the threat on its own.**<sup>76</sup> This duty applies in the context of global climate change.<sup>77</sup> A State is not relieved of its own responsibility because other States are also responsible for climate harms.<sup>78</sup>

20. **The Court has jurisdiction to review whether State measures are effective to safeguard rights.** While States enjoy a certain margin of appreciation in choosing particular measures to implement their obligations, the Court retains jurisdiction to review whether those measures are adequate to render Convention rights effective, not illusory.<sup>79</sup> The urgency of the climate crisis, the risk of irreversible harm, and the impact on the right to life narrow States' margin of appreciation.<sup>80</sup>

21. **State discretion over which climate measures to implement is limited.** As the Inter-American Court of Human Rights emphasised, courts must look at international environmental law not only when defining the "meaning and scope of the obligations assumed" but also when "*specifying the measures* that the States must take" to fulfil those obligations.<sup>81</sup> Science provides the foundation for determining which measures have a real prospect of mitigating the risk that climate change poses to Convention rights.<sup>82</sup> States must continuously review whether stricter measures are required to achieve sufficient protection given new scientific developments.<sup>83</sup>

#### **IV. To comply with their Convention obligations, States must demonstrate measures with the greatest likelihood of keeping warming below 1.5°C**

22. **Given the IPCC's finding that warming of 1.5°C would not be safe for most people,<sup>84</sup> it contravenes States' Convention duties to pursue measures that are designed to allow warming to reach 1.5°C or higher.** States must pursue all measures within their power to keep warming *below* 1.5°C.

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<sup>76</sup> *Opuz v. Turkey*, no. 33401/02, para. 136 (2009); *E. and Others v. The United Kingdom*, no. 33218/96, para. 99 (2003); *O'Keefe v. Ireland* [GC], no. 35810/09, para. 149 (2014).

<sup>77</sup> HRC, General Comment No. 36, para. 62; Joint Statement by Comm. on the Elimination of Discrimination against Women, CESCR, Comm. on the Protection of the Rights of All Migrant Workers and Members of Their Families, Comm. on the Rights of the Child and Comm. on the Rights of Persons with Disabilities, Statement on Human Rights and Climate Change, U.N. Doc. HRI/2019/1, para. 10 (Sept. 16, 2019) [Joint Statement on "Human Rights and Climate Change"].

<sup>78</sup> U.N. General Assembly, 56/83 Responsibility of States for internationally wrongful acts, annex, art. 47(1), U.N. Doc. A/RES/56/83 (Jan. 28, 2002); *M.S.S. v. Belgium and Greece* [GC], no. 30696/09, para. 338 (2011); *see also Urgenda*, at paras. 5.7.5-5.7.7; *Klimatická žaloba ČR*, at para. 325; *Neubauer et al.*, at paras. 149, 197-98, 201-02.

<sup>79</sup> *See Fadeyeva v. Russia*, no. 55723/00, paras. 124, 133-34 (2005); *Christine Goodwin v. The United Kingdom*, no. 28957/95, para. 74 (2002).

<sup>80</sup> *Budayeva and Others*, at para. 175; *accord Urgenda*, at para. 5.3.2; *Pavlov and Others v. Russia*, no. 31612/09, paras. 75, 77, 91 (2022).

<sup>81</sup> Advisory Opinion OC-23/18, at para. 44; *cf. Case of the Xámok Kásek Indigenous Community v. Paraguay*, Inter-Am. Ct. H.R. (ser. C) No. 214, paras. 195-96 (Aug. 24, 2010).

<sup>82</sup> *See* Advisory Opinion OC-23/18, at paras. 172, 174(v).

<sup>83</sup> *See supra* paras. 5-6 of this brief, and the sources cited therein; *cf. Neubauer et al.*, at para. 212; *Thomson*, at para. 91s, 93-94 (Court found that the Minister "must consider whether information in an IPCC report materially alters the information against which an existing target was set.").

<sup>84</sup> IPCC 1.5SR, TS and Ch. 5, at pp. 44, 447.

23. **Measures must address all sources of emissions, both public and private, subject to the State’s jurisdiction or control.**<sup>85</sup> State action must encompass those activities that have “a direct and reasonably foreseeable impact” on the risk of harm from climate change, including but not limited to the combustion of fossil fuels and destruction of natural carbon sinks, regardless of where the resultant emissions occur.<sup>86</sup> Production and export of fossil fuels must be included among such activities because GHG emissions are the inevitable, foreseeable result of using oil, gas, and coal products as intended.<sup>87</sup>

24. **Measures must ensure that the State’s domestic emissions are on a path consistent with staying below 1.5°C.** Every Contracting State must meet its responsibility to reduce emissions domestically as far as possible and reach near zero fossil fuel emissions for the world to remain below 1.5°C warming. That means they cannot forgo available preventive measures to reduce their domestic emissions in favour of reduction measures in other parts of the world. Particularly in the absence of a reliable crediting system for transferable emission reduction certificates between countries,<sup>88</sup> States cannot use emissions reductions achieved in other jurisdictions to “offset” large-scale gaps in their required domestic emission reductions. Specifically, historically high-emitting nations must effectively address their own domestic emissions, including emissions from production and export of fossil fuels, while continuing to support emission reduction efforts in other countries.<sup>89</sup>

25. **Measures should prioritise near-term action over uncertain and unproven future fixes.** Referring to IPCC science, recent domestic courts in Europe have concluded that the failure to adopt and implement near-term targets and measures for emissions reduction breaches State obligations to mitigate climate change adequately. Recently, the Prague Municipal Court held that the Paris Agreement obligation to implement mitigation measures is an immediate one, requiring States to implement “policies that actually lead to the achievement of the future [climate] goal.”<sup>90</sup> Courts in France have rejected the notion that the government’s pursuit of mid-term or long-term targets could excuse its failure to meet its near-term target, given the cumulative, lasting effects of current emissions,<sup>91</sup> and the risk that delayed action would require drastic cuts later, on an order never yet achieved.<sup>92</sup> The German Constitutional Tribunal ruled similarly, noting that the German State cannot transfer a disproportionate mitigation burden onto future generations, as this would impede their enjoyment of fundamental rights.<sup>93</sup> Only steep near-term emissions reductions, which require the phaseout of fossil fuels, can keep warming below 1.5°C.

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<sup>85</sup> *Tătar v. Romania*, no. 67021/01, para. 87 (2009); *see also supra* note 75 and sources cited therein.

<sup>86</sup> HRC, General Comment No. 36, at paras. 22, 62; CESCR, General Comment No. 24, at paras. 26-28; Joint Statement on “Human Rights and Climate Change,” at para. 10; Advisory Opinion OC-23/18, at paras. 81, 101-02.

<sup>87</sup> *See Gray v. The Minister for Planning and Ors* [2006] NSWLEC 720, paras. 97-100 (recognizing that upstream fossil fuel extraction is linked to downstream GHG emissions); *Gloucester Resources Limited v. Minister for Planning* [2019] NSWLEC 7, para. 490 (discussing the requirement to consider indirect (scope 3) GHG emissions in assessing the impacts of a fossil fuel project).

<sup>88</sup> *Neubauer et al.*, at para. 226.

<sup>89</sup> UNFCCC, at arts. 3, 4; Paris Agreement, at arts. 2.2, 9.

<sup>90</sup> *Klimatická žaloba ČR*, at para 261.

<sup>91</sup> *Notre Affaire à Tous and Others*, at para. 31.

<sup>92</sup> *Commune de Grande-Synthe*, N° 427301 (Conseil d’Etat, République Française), para. 15 (2020).

<sup>93</sup> *Neubauer et al.*, at para. 182 *et seq.*

26. **Foregoing known mitigation measures in the near-term in favour of deploying risky methods and technologies in the future contravenes the duty to protect.** The precautionary and preventive principles oblige States to prioritise measures known to be effective at averting or mitigating a foreseeable risk over uncertain ones, and measures that pose a lower risk of causing harm over those with greater potential adverse impacts.<sup>94</sup> CCS and CDR technologies are currently unproven at scale and their deployment presents social and environmental risks, including risks to human rights.

27. **Domestic courts in Europe have struck down climate mitigation policies that lack specific or stringent near-term emissions reductions, including plans that rely instead on uncertain future CDR.** In *Urgenda*, the Dutch Supreme Court rejected the Dutch State’s reliance on drastic measures to remove GHGs from the atmosphere in the future, noting that “there is no technology that allows this [removal of emissions] to take place on a sufficiently large scale” and “taking such risks would be contrary to the precautionary principle that must be observed when applying Articles 2 and 8 ECHR and Article 3(3) UNFCCC”.<sup>95</sup> Courts in Germany and Ireland have likewise recognized the uncertainty of CDR.<sup>96</sup> Failure to reduce emissions adequately in the near term constrains the remaining pathways available to stay below 1.5°C, requiring radical emission cuts after 2030 that may be achievable only at the cost of impairing fundamental rights.

28. **The State must disclose the risks associated with its climate measures.** Finally, a State’s decisions regarding which measures to prioritise and implement must be made through a transparent and participatory process, which informs the public of the risks associated with the measures adopted to avert climate harm.<sup>97</sup> This disclosure obligation applies with equal force to the risks associated with the timing of emissions reductions and carbon removal technologies relied upon in a State’s climate plan.<sup>98</sup>

## V. Conclusion

29. The science is clear: humanity can and must keep warming below 1.5°C this century. But States must act now in accordance with their Convention obligations and the latest best available science. Given that all Contracting States have endorsed the conclusions of the IPCC reports and in view of mounting evidence of human rights harm due to climate change, States have an incontrovertible duty under human rights law to take effective climate action. The onus is on the State to explain how its climate measures are consistent with keeping warming below 1.5°C.

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<sup>94</sup> Advisory Opinion OC-23/18, at paras. 130, 133, 142, 180; *see also* *Tătar* paras. 108-109

<sup>95</sup> *Urgenda*, at para. 7.2.5.

<sup>96</sup> *Neubauer et al.*, at para. 227; *Friends of the Irish Environment v. The Government of Ireland & Ors.*, [2020] IESC 49, paras.6.46.

<sup>97</sup> *See, e.g., Taşkın and Others*, at para. 119; Advisory Opinion OC-23/18, at paras. 241, 242(f)-(g); *Neubauer et al.*, at para. 260; *Friends of the Irish Environment*, at para. 6.21.

<sup>98</sup> *See, e.g., Friends of the Irish Environment*, at paras. 6.46-6.47; *see also Friends of the Earth Ltd. & Ors v. Secretary of State for Business, Energy and Industrial Strategy*, [2022] EWHC 1841, para. 250.