#### The role of solidarity in addressing climate injustice

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#### The need for solidarity

The planet is facing three global crises: climate change, pollution and biodiversity loss. Of these, climate change is the most pressing, and exacerbates the others. Climate change refers to long-term shifts in temperatures and weather patterns (including rainfall) that will radically transform the ecosystems that support life on the planet, both human and non-human. Human activities are the main causes of climate change, increasing emissions of greenhouse gases and removing sinks that sequester greenhouse gases. The consequences of climate change are manifest today: increased temperatures including ocean heat, decreasing sea-ice and glacier volume, rising sea levels and increased extreme weather events including wildfires and flooding.<sup>1</sup>

Climate change is also a justice problem. The exploitation of the world's fossil fuel reserves by the richest countries (the developed countries) has enabled them to enjoy economic prosperity. However, it has led to a crisis of inequality. Countries that have contributed the least to the climate change crisis (the developing countries, including the least developed countries and small island states) suffer the most from climate change and are less able to afford costly adaptation measures. The impacts of climate change have caused food insecurity, population displacement and adverse impacts on vulnerable people.<sup>2</sup>

This distributive injustice must be addressed by the global community. Treaties are one means. The United Nations Framework Convention on Climate Change (UNFCCC) in 1992, and the Kyoto Protocol and Paris Agreement made under the UNFCCC in 1997 and 2015 respectively, seek to tackle the climate change crisis and achieve a just transition to a low carbon energy system. Embedded in this international climate law regime is the norm of solidarity.

Solidarity is more than intensified co-operation within the international community. It is a foundational concept of international law that has developed into a norm with legal implications. Solidarity directs and mandates a certain conduct of states, and in some cases of non-state actors, in order to avert and redress the deterioration of living conditions of human and non-human life on the planet. Solidarity has the capacity to address climate injustice because it provides guidance for decision-making under the normative demands and objectives of international climate law. As a norm for decision-making, solidarity requires, at a minimum, alignment of states' own conduct with that of others in the pursuit of a common objective, even if that entails a sacrifice.

While solidarity is a corollary to the responsibility of states to take effective and protective action, it is nevertheless distinct from the concept of responsibility. Responsibility of a state is often invoked because of a state's capacity and its previous conduct. Solidarity demands that a state with capacity offer support to another state because of that other state's lack of capacity and regardless of that state's previous conduct, without an expectation of reciprocity by that other state.

The international climate law regime manifests the norm of solidarity in at least ten ways: solidarity in action; solidarity in leadership; solidarity in achieving fair shares; solidarity amongst peers; solidarity in support; intragenerational solidarity; intergenerational solidarity; solidarity with nature; solidarity

<sup>&</sup>lt;sup>1</sup> World Meteorological Organization, 'State of the Global Climate 2023' (WMO, 2024).

<sup>&</sup>lt;sup>2</sup> Ibid.

in science; and inter-jurisdictional juristic solidarity. Six of these manifestations are particularly relevant to the crisis of distributive injustice that climate change causes: solidarity in action; solidarity in leadership; solidarity in achieving fair shares; solidarity in support; intragenerational solidarity and intergenerational solidarity. This paper addresses these six manifestations of solidarity.

#### Solidarity in action

Climate change is a quintessential global problem that demands a global solution. All countries need to take action to mitigate climate change, but in different ways. As the sixth recital of the UNFCCC records, "the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions." The UNFCCC did not prescribe what should be the "effective and appropriate international response."<sup>3</sup> The UNFCCC set out the commitments of all parties to formulate and implement measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of greenhouse gases, and measures to facilitate adequate adaptation to climate change<sup>4</sup> and for developed countries and other parties included in Annex I to the UNFCCC to take the lead in taking such mitigation and adaptation action.<sup>5</sup> But the UNFCCC did not prescribe any targets, whether temperature or time, for the mitigation or adaptation action to be taken by all parties.

The Kyoto Protocol prescribed the greenhouse gas emissions reductions that developed countries included in Annex I of the UNFCCC were to achieve,<sup>6</sup> but other countries not included in Annex I were left a discretion as to the emissions reductions they wished to and had the capabilities to achieve.

The Paris Agreement, for the first time, set out a mechanism for all countries to take action to mitigate climate change. The Paris Agreement requires all countries to take measures to reduce greenhouse gas emissions in their jurisdictions to keep the increase in global average temperatures to well below 2°C, ideally close to 1.5°C, above pre-industrial levels in the second half of this century (which is interpreted to be by 2050). These are the temperature and time targets in Articles 2 and 4 of the Paris Agreement. The Paris Agreement requires all parties, developed and developing countries alike, to take measures to achieve collectively the temperature goal set out in Article 2 within the time specified in Article 4. The principal means is for each party to self-determine its emissions reduction measures through its Nationally Determined Contribution (NDC) submitted under the Paris Agreement.<sup>7</sup> Each party's successive NDC is to represent a progression beyond the party's current NDC and reflect its highest possible ambition.<sup>8</sup> The extent and speed of emissions reductions – the level of ambition – in a party's NDC will be "on the basis of equity"<sup>9</sup> and reflect "its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances."<sup>10</sup> According to Williams, this principle "represents a clear manifestation of solidarity in regulating responsibilities

<sup>&</sup>lt;sup>3</sup> United Nations Framework Convention on Climate Change, opened for signature 9 May 1992, 1771 UNTS 107 (entered into force 21 March 1994) ('UNFCCC'), 6<sup>th</sup> Recital.

<sup>&</sup>lt;sup>4</sup> Ibid, Article 4(1)(b).

<sup>&</sup>lt;sup>5</sup> Ibid, Article 4(2).

<sup>&</sup>lt;sup>6</sup> Kyoto Protocol to the United Nations Framework Convention on Climate Change, opened for signature 11 December 1997, 2303 UNTS 148 (entered into force 16 February 2005) ('Kyoto Protocol'), Annex B.

<sup>&</sup>lt;sup>7</sup> Paris Agreement, opened for signature 22 April 2016, 3156 UNTS 3 (entered into force 4 November 2016) ('Paris Agreement'), Article 4(2) and (3).

<sup>&</sup>lt;sup>8</sup> Ibid, Article 4(3).

<sup>&</sup>lt;sup>9</sup> Ibid, Article 2(2) and Article 4(1).

<sup>&</sup>lt;sup>10</sup> Ibid, Article 4(3).

for cooperation".<sup>11</sup> Solidarity in action is manifested by the recognition that all parties have *common* responsibilities to take mitigation action,<sup>12</sup> albeit at differing levels of ambition.<sup>13</sup>

### Solidarity in leadership and in achieving fair shares

Whilst all countries have a responsibility to take some mitigation action, developed countries have increased responsibilities and capabilities to take the lead in mitigating climate change. Developed countries have enjoyed and continue to enjoy economic prosperity through their exploitation and combustion of fossil fuels. According to the Center for Global Development, developed countries are responsible for 79 per cent of greenhouse gas emissions between 1850 and 2011<sup>14</sup> and just 23 developed countries, consisting of only 12% of the global population, account for approximately half of all historical carbon dioxide emissions.<sup>15</sup> But this prosperity of developed countries has come at the cost of dramatically increasing global atmospheric carbon levels, triggering the climate change crisis. The third recital of the UNFCCC notes this fact that "the largest share of historical and current global emissions of greenhouse gases has originated in developed countries".

In economics, this cost is termed an externality: a cost caused by one party but borne by others. Developed countries have a responsibility, deriving from their economic prosperity, yielded from this past conduct, to address this externality by taking more ambitious action to reduce the risks and impacts of climate change. Also by reason of their economic prosperity, developed countries have increased capabilities to do so.

This gives rise to two, related forms of solidarity. First, solidarity in leadership. Countries with increased responsibilities and capabilities to address climate change, the developed countries, need to take the lead by undertaking deep and rapid greenhouse gas emissions reductions. This need for developed countries to take the lead was recognised in the UNFCCC. The UNFCCC recites "the need for developed countries to take immediate action in a flexible manner on the basis of clear priorities, as a first step towards comprehensive response strategies at the global, national and, where agreed, regional levels that take into account all greenhouse gases, with due consideration of their relative contributions to the enhancement of the greenhouse effect".<sup>16</sup> Article 3(1) expressly prescribes that "the developed country Parties should take the lead in combating climate change and the adverse effects thereof." That is reiterated in Article 4(2)(a) which requires each developed country party and other party included in Annex I to "adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs", so as to "demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention...".

The Kyoto Protocol itself was an embodiment of solidarity in leadership. The structure of the Kyoto Protocol was to impose obligations on the developed country parties and other parties included in Annex I to the UNFCCC to take the prescribed mitigation action, including principally to achieve the

<sup>&</sup>lt;sup>11</sup> Angela Williams, 'Solidarity, Justice and Climate Change Law' (2009) 10 *Melbourne Journal of International Law* 13.

<sup>&</sup>lt;sup>12</sup> Paris Agreement, Article 3.

<sup>&</sup>lt;sup>13</sup> Ibid, Article 4(3) and (4).

 <sup>&</sup>lt;sup>14</sup> Center for Global Development, 'Developed Countries are Responsible for 79 Percent of Historical Carbon Emissions' https://www.cgdev.org/media/who-caused-climate-change-historically (accessed 11 October 2024).
<sup>15</sup> N. Popovich and B. Plumer, 'Who Has The Most Historical Responsibility for Climate Change?' *New York Times* (12 November 2021) https://www.nytimes.com/interactive/2021/11/12/climate/cop26-emissions-

compensation.html.

<sup>&</sup>lt;sup>16</sup> UNFCCC, 18<sup>th</sup> Recital.

quantified emissions limitation and reduction commitments under Article 3. This prescriptive "topdown" approach to impose obligations was limited to the developed country parties included in Annex I to the UNFCCC. No commitments were prescribed for parties not included in Annex I, although they were encouraged to formulate and implement their own, self-determined efforts to mitigate anthropogenic emissions by sources and removals by sinks of greenhouse gases in their countries, under Article 10.

The need for developed countries to take the lead was re-affirmed by the Paris Agreement. Article 4(4) of the Paris Agreement emphasises that: "Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets." By taking the lead, developed countries encourage developing countries to undertake their own mitigation efforts. Article 4(4) continues: "Developing country Parties should continue enhancing their mitigation efforts and are encouraged to move more over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances." Article 9(3) calls for developed parties to take the lead in mobilizing climate finance from a wide variety of sources, taking into account the needs and priorities of developing countries.

Second, solidarity in achieving fair shares. Different countries with different responsibilities and capabilities, and different national circumstances, need to contribute fairly to the global effort to address climate change. Determining each country's "fair share" is difficult, with competing criteria being advanced. Nevertheless, there is general acceptance that developed countries, which are responsible for the largest share of historical global emissions of greenhouse gases, ought in fairness contribute more to the global effort to address climate change. That is to say, developed countries' fair shares of greenhouse gas emissions reductions ought to be much greater than developing countries' shares.<sup>17</sup> As noted earlier, this increased responsibility of developed countries to contribute more to emissions reductions has been recognised in the UNFCCC, Kyoto Protocol and Paris Agreement.

Solidarity in leadership and in achieving fair shares was also recognised in the report of the first global stocktake in 2023,<sup>18</sup> undertaken pursuant to Article 14 of the Paris Agreement. Key Finding 7 reinforces the need for parties to ensure that their mitigation efforts articulated in their NDCs are "fair and ambitious" reflecting their "common but differentiated responsibilities and respective capabilities, in light of different national circumstances."

In climate litigation, courts have recognised and upheld these forms of solidarity. In the *Urgenda* litigation in the Netherlands, the Dutch courts observed that the underlying basis for the responsibility of developed countries to take the lead in reducing emissions is that these countries are more responsible for historical emissions and have a greater capacity to reduce future emissions.<sup>19</sup>

In the South Korean constitutional case of *Do-Hyun Kim v South Korea*,<sup>20</sup> the Constitutional Court held that South Korea was obliged to bear a fair share of responsibility for global greenhouse gas emissions

<sup>&</sup>lt;sup>17</sup> Lavanya Rajami, 'National 'fair shares' in reducing greenhouse gas emissions within the principled framework of international environmental law' (2021) 21(8) *Climate Policy* 983, 984.

<sup>&</sup>lt;sup>18</sup> United Nations Framework Convention on Climate Change Conference of the Parties, Technical Dialogue of the First Global Stocktake, FCCC/SB/ 2023/9 (8 September 2023) 1, [23].

<sup>&</sup>lt;sup>19</sup> The State of the Netherlands v Urgenda Foundation ECLI:NL: GHDHA:2018:2610 (Urgenda II) and The State of the Netherlands v Urgenda Foundation ECLI:NL:HR:2019:2007 (Urgenda III).

<sup>&</sup>lt;sup>20</sup> 2020Hun-Ma389.

reduction obligations.<sup>21</sup> The court stated that the standard by which South Korea's emissions reduction target should be assessed needs to be based on science and international standards.<sup>22</sup>

In the Australian climate case of *Gloucester Resources Limited v Minister for Planning*,<sup>23</sup> the Land and Environment Court of New South Wales held that developed countries, such as Australia, have a responsibility "to take the lead in taking mitigation measures to reduce GHG emissions".<sup>24</sup> One way of taking the lead is by developed countries refusing a new development for the exploitation or burning of fossil fuel reserves, such as a coal mine. Developing countries may be encouraged to likewise not approve new development for the exploitation or burning of fossil fuel reserves by developed countries taking the lead in doing so in their countries.

# Solidarity in support

The increased responsibilities and capabilities of developed countries also trigger the need for developed countries to provide support to developing countries. The support may be to enable developing countries to achieve higher ambition in mitigation outcomes and have increased capacity for adaptation actions, including through the provision of financial resources, technology development and transfer, and capacity building. This is solidarity in support.

The climate change treaties emphasise the responsibility of developed countries to support developing countries in their mitigation and adaptation efforts and in addressing the impacts of climate change developing countries have already suffered.

The support the UNFCCC encourages ranges from the general, such as promoting economic growth to enable developing countries to better address the problems of climate change,<sup>25</sup> to the specific, such as promoting research, exchange of information and transfer of technology with respect to scientific, technological, technical, socio-economic, legal and other matters.<sup>26</sup>

In particular, the UNFCCC commits developed countries and other parties included in Annex I to provide financial resources to developing countries to meet their costs in meeting their commitments under Article 4(1) and Article 12(1)<sup>27</sup> and to developing countries that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.<sup>28</sup> The UNFCCC established a mechanism for the provision of financial resources, on a grant or concessional basis, including for the transfer of technology.<sup>29</sup>

The Kyoto Protocol committed or encouraged developed countries and other parties included in Annex I to the UNFCCC to share with developing countries their experience and to exchange information on policies and measures on the mitigation of climate change and the transition to renewable forms of energy, amongst other matters;<sup>30</sup> promote, facilitate and finance the transfer of, or access to, environmentally sound technologies, know-how, practices and processes pertinent to

<sup>&</sup>lt;sup>21</sup> Constitutional Court of Korea, Decision in cases 2020HunMa389; 2021HunMa1264 (Consolidated); 2022HunMa854 (Consolidated); and 2023HunMa846 (Consolidated), 29 August 2024 (unofficial English translation prepared by Plan 1.5).

<sup>&</sup>lt;sup>22</sup> Ibid.

<sup>&</sup>lt;sup>23</sup> (2019) 234 LGERA 257.

<sup>&</sup>lt;sup>24</sup> Ibid, [539]-[540].

<sup>&</sup>lt;sup>25</sup> See UNFCCC, 21<sup>st</sup> Recital and Article 3(4) and (5).

<sup>&</sup>lt;sup>26</sup> See ibid, Article 4(1), (5), (8) and (9), Article 5 and Article 6.

<sup>&</sup>lt;sup>27</sup> Ibid, Article 4(3).

<sup>&</sup>lt;sup>28</sup> Ibid, Article 4(4).

<sup>&</sup>lt;sup>29</sup> Ibid, Article 11.

<sup>&</sup>lt;sup>30</sup> Kyoto Protocol, Article 2(1).

climate change to developing countries;<sup>31</sup> cooperate in scientific and technical research on climate change and its adverse effects;<sup>32</sup> and strengthen national capacity-building in developing countries.<sup>33</sup> The Kyoto Protocol also committed developed countries and other parties included in Annex I to the UNFCCC to provide financial resources to meet the costs of developing countries in meeting their commitments under the UNFCCC.<sup>34</sup> The Kyoto Protocol established the clean development mechanism. One of its purposes was to assist parties not included in Annex I to the UNFCCC in achieving sustainable development<sup>35</sup> and in contributing to the ultimate objective of the UNFCCC.

The Paris Agreement affirms the responsibility of developed countries to provide support to developing countries. Article 4(5) requires support to be provided, in accordance with Articles 9, 10 and 11, to developing countries to assist them in implementing Article 4 regarding preparation and implementation of their NDCs, recognising that enhanced support for developing countries will allow for higher ambition in their mitigation actions.

Article 9 of the Paris Agreement requires developed countries to provide financial resources to assist developing countries with respect to both mitigation and adaptation, recognising that this is a continuation of developed countries' existing obligations under the UNFCCC.<sup>36</sup> The Financial Mechanism of the UNFCCC serves as the financial mechanism of the Paris Agreement.<sup>37</sup>

Article 10 of the Paris Agreement encourages technology development and transfer to improve resilience to climate change and to reduce greenhouse gas emissions.<sup>38</sup> The Paris Agreement establishes a technology framework to guide the work of the Technology Mechanism established under the UNFCCC in promoting and facilitating enhanced action on technology development and transfer in order to support implementation of the Paris Agreement.<sup>39</sup> Support is to be provided to developing countries to implement Article 10, including for strengthening cooperative action on technology development and transfer at different stages of the technology cycle, with a view to achieving a balance between support for mitigation and adaptation.<sup>40</sup>

Article 11 of the Paris Agreement provides for capacity-building of developing countries. Article 11(1) states:

"Capacity-building under this Agreement should enhance the capacity and ability of developing country Parties, in particular countries with the least capacity, such as the least developed countries, and those that are particularly vulnerable to the adverse effects of climate change, such as small island developing States, to take effective climate change action, including, inter alia, to implement adaptation and mitigation actions, and should facilitate technology development, dissemination and deployment, access to climate finance, relevant aspects of education, training and public awareness, and the transparent, timely and accurate communication of information."

<sup>&</sup>lt;sup>31</sup> Ibid, Article 10(c).

<sup>&</sup>lt;sup>32</sup> Ibid, Article 10(d).

<sup>&</sup>lt;sup>33</sup> Ibid, Article 10(e).

<sup>&</sup>lt;sup>34</sup> Ibid, Article 11.

<sup>&</sup>lt;sup>35</sup> Ibid, Article 12.

<sup>&</sup>lt;sup>36</sup> Paris Agreement, Article 9(1).

<sup>&</sup>lt;sup>37</sup> Ibid, Article 9(8).

<sup>&</sup>lt;sup>38</sup> Ibid, Article 10(1) and (2).

<sup>&</sup>lt;sup>39</sup> Ibid, Article 10(4).

<sup>&</sup>lt;sup>40</sup> Ibid, Article 10(6).

A particular responsibility is placed on developed countries to "enhance support for capacity-building actions in developing country Parties."<sup>41</sup>

Articles 9, 10 and 11 of the Paris Agreement were referenced by the Queensland Land Court in *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)*<sup>42</sup> as setting out the commitments of developed countries to provide support to developing countries.

Solidarity in support is demonstrated by commitments of parties to provide financial support for developing countries for climate action. At COP29 in November 2024 in Baku, Azerbaijan, the parties agreed to set a goal of "at least USD 300 billion per year by 2035 for developing country Parties for climate action". Developed countries are required to take the lead on this, however the decision iterates that the finance is to come from "a wide variety of sources, public and private, bilateral and multilateral, including alternative sources".<sup>43</sup>

Solidarity in support is further illustrated by the 'breakthrough agreement' that was made at the close of COP27 to provide loss and damage funding to countries most vulnerable to the effects of climate change.<sup>44</sup> That initiative of support was formalised at COP28, with an agreement to establish a loss and damage fund to help developing countries cope with the effects of climate change.<sup>45</sup>

# Intragenerational solidarity

Climate injustice exists not only between countries – between the developed and developing countries – but also within countries, between the rich and poor, the advantaged and disadvantaged, the wellprotected and the vulnerable. There are increased responsibilities to take action to support and benefit those who are less able to do so, the poor and the disadvantaged, and who are most vulnerable to the adverse effects of climate change. This is intragenerational solidarity.

Intragenerational solidarity is recognised in the climate change treaties, especially the need to consider and assist those countries and people within countries vulnerable to the adverse effects of climate change.

The UNFCCC identified "low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems are particularly vulnerable to the adverse effects of climate change."<sup>46</sup>

Article 3(2) of the UNFCCC exhorts that:

"The specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties,

<sup>45</sup> UN Climate Press Release, 'COP28 Agreement Signals "Beginning of the End" of the Fossil Fuel Era" (*United Nations Climate Change, 13 December 2023*) <<u>https://unfccc.int/news/cop28-agreement-signals-beginning-of-the-end-of-the-fossil-fuel-era</u>> accessed 17 September 2024.

<sup>46</sup> UNFCCC, 19<sup>th</sup> Recital.

<sup>&</sup>lt;sup>41</sup> Ibid, Article 11(3).

<sup>42 [2022]</sup> QLC 21 at [680].

<sup>&</sup>lt;sup>43</sup> 'New collective quantified goal on climate finance' (Decision -/CMA.6, art [8], advance unedited version) available https://unfccc.int/cop29/auvs [to update once final version published].

<sup>&</sup>lt;sup>44</sup> UN Climate Press Release, 'COP27 Reaches Breakthrough Agreement on New "Loss and Damage" Fund for Vulnerable Countries' (*United Nations Climate Change, 20 November 2022*)<<u>https://unfccc.int/news/cop27-</u> <u>reaches-breakthrough-agreement-on-new-loss-and-damage-fund-for-vulnerable-countries</u>> accessed 17 September 2024.

especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration."

As earlier described, the UNFCCC requires developed countries to provide support, in various ways, to developing countries, including assisting those developing countries that are particularly vulnerable to the adverse effects of climate change in taking action, and meeting the costs of such action, to adapt to those adverse effects.<sup>47</sup>

The Paris Agreement also recognises the specific needs and special circumstances of developing countries, "especially those that are particularly vulnerable to the adverse effects of climate change,"<sup>48</sup> as well as those people within these countries suffering poverty and hunger.<sup>49</sup> The Paris Agreement acknowledged that when taking action to address climate change, parties should consider their obligations on "human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity."<sup>50</sup> Article 4(15) requires parties to take into consideration, in the implementation of the Paris Agreement, the concerns of parties with economies most affected by the impacts of response measures, particularly developing countries. Article 7 extends this consideration to adaptation action. Adaptation to climate change to protect people, livelihoods and ecosystems needs to take into account "the urgent and immediate needs of those developing country Parties that are particularly vulnerable to the adverse effects of climate change."<sup>51</sup> Adaptation planning processes and implementation of adaptation actions need to be based on an assessment of climate change impact and vulnerability, "taking into account vulnerable people, places and ecosystems."<sup>52</sup>

As earlier noted, Articles 9, 10 and 11 of the Paris Agreement provide for developed countries to support, in various ways, developing countries, particularly those vulnerable to the adverse effects of climate change.

Intragenerational solidarity is recognised by the 2023 Global Stocktake report. Key Finding 2, regarding strengthening the global response to the threat of climate change, recommended that: "Credible, accountable and transparent actions by non-Party stakeholders are needed to strengthen efforts for systems transformations". Non-party stakeholders include business and industry. Key Finding 7 stresses the need for a "just transition" to net zero emissions, in order to "support more robust and equitable mitigation outcomes, with tailored approaches addressing different contexts." A "just transition" is one that leaves no one behind and is fair for all.

That business and industry stakeholders bear increased responsibility to contribute to greenhouse gas emissions reductions was recognised by The Hague District Court in *Milieudefensie et al v Royal Dutch Shell*:<sup>53</sup> "There is broad international consensus that it is imperative for non-state actors to contribute to emissions reduction... and for companies for have an individual responsibility to achieve the reduction targets...".<sup>54</sup> Although the specific emissions reduction target which The Hague District Court

<sup>&</sup>lt;sup>47</sup> See ibid, Article 4(4) and (8) for example.

<sup>&</sup>lt;sup>48</sup> Paris Agreement, 5<sup>th</sup> Recital.

<sup>&</sup>lt;sup>49</sup> Ibid, 8<sup>th</sup> and 9<sup>th</sup> Recitals.

<sup>&</sup>lt;sup>50</sup> Ibid, 11<sup>th</sup> Recital.

<sup>&</sup>lt;sup>51</sup> Ibid, Article 7(2).

<sup>&</sup>lt;sup>52</sup> Ibid, Article 7(9)(c).

<sup>&</sup>lt;sup>53</sup> ECLI:NL:RBDHA:2021:5337.

<sup>&</sup>lt;sup>54</sup> Ibid, at L4:4:52.

imposed on Shell was struck down on appeal by The Hague Court of Appeal,<sup>55</sup> the Court of Appeal nevertheless held that companies, in addition to being required to comply with regulatory obligations, "have a social duty of care to reduce their emissions".<sup>56</sup> The Court also recognised that Shell, as "a major oil company ... has a special responsibility" and "must make an appropriate contribution to preventing dangerous climate change".<sup>57</sup>

The European Court of Human Rights in *Verein KlimaSeniorinnen Schweiz and Others v Switzerland*<sup>58</sup> recognised the vulnerability of certain populations to the effects of climate change, such as high temperatures, including older adults, children, women and those with chronic diseases. The Court found Switzerland's insufficiently ambitious greenhouse gas emissions reduction targets infringed the human rights of the vulnerable population of older people.<sup>59</sup>

### Intergenerational solidarity

Climate injustice also exists between generations. The inadequate climate action or inaction of the present generation has consequences for future generations. Solidarity is manifested by the current generation taking needed climate action for the benefit of future generations. This is intergenerational solidarity.

Intergenerational solidarity is recognised by the climate change treaties. The UNFCCC recalls earlier resolutions of the UN General Assembly on the need for the "protection of global climate for present and future generations of mankind"<sup>60</sup> and recites the determination "to protect the climate system for present and future generations".<sup>61</sup> The first of the principles of the UNFCCC is that the parties "should protect the climate system for the benefit of present and future generations of humankind".<sup>62</sup>

The Paris Agreement acknowledges that in taking action to address climate change, consideration needs to be given to "intergenerational equity."<sup>63</sup> The temperature and time targets set by the Paris Agreement have as their purpose the protection of future generations from the adverse effects of climate change. In order to achieve the temperature target in Article 2, the aim is to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century (by 2050).<sup>64</sup> Intergenerational solidarity is thereby structurally embedded in the Paris Agreement.

The present generation has a responsibility not to offload the burden of taking needed mitigation action to future generations. This was recognised by the German Federal Constitutional Court in *Neubauer et al v Germany*.<sup>65</sup> The German Federal Climate Change Act, as originally made, had set inadequate greenhouse gas emissions reduction targets in the short and mid-term, thereby placing an unreasonable burden on future generations to take even-greater emissions reductions in the future. The German Federal Constitutional Court held that the Climate Change Act thereby had an "advance

<sup>&</sup>lt;sup>55</sup> ECLI:NL:GHDHA:2024:2100 (The Hague Court of Appeal, 12 November 2024).

<sup>&</sup>lt;sup>56</sup> Ibid, [7.57].

<sup>&</sup>lt;sup>57</sup> Ibid, [7.79].

<sup>&</sup>lt;sup>58</sup> European Court of Human Rights, Grand Chamber, Application No 53600/20, 9 April 2024 at [510].

<sup>&</sup>lt;sup>59</sup> Ibid, [634]-[637].

<sup>&</sup>lt;sup>60</sup> UNFCCC, 11th Recital.

<sup>&</sup>lt;sup>61</sup> Ibid, 23<sup>rd</sup> Recital.

<sup>&</sup>lt;sup>62</sup> Ibid, Article 3(1).

<sup>&</sup>lt;sup>63</sup> Paris Agreement, 11<sup>th</sup> Recital.

<sup>&</sup>lt;sup>64</sup> Ibid, Article 4(1).

<sup>&</sup>lt;sup>65</sup> (2021) 1 BvR 2656/18, 1 BvR 78/20, 1 BvR 96/20, 1 BvR 288/20.

interference-like effect" on future freedoms protected by fundamental rights in the German Constitution. $^{66}$ 

The climate action needing to be taking by the present generation includes phasing out the extraction and combustion of fossil fuels, a major source of greenhouse gas emissions. Key Finding 6 of the 2023 Global Stocktake recognises that achieving net zero emissions requires systems transformations across all economic sectors, including "scaling up renewable energy while phasing out all unabated fossil fuels." This need for intergenerational equity was recognised by the Land and Environment Court of NSW in *Gloucester Resources Limited v Minister for Planning*<sup>67</sup> and the Queensland Land Court in *Waratah Coal Pty Ltd v Youth Verdict Ltd (No 6)*.<sup>68</sup>

# From climate injustice to climate justice

Implementing the norm of solidarity in the formulation and taking of climate action will not by itself redress the current climate inequity between states, stakeholders and people. However, the norm of solidarity assists in driving the mitigation and adaptation efforts needed to address climate change and redress the harm caused by climate change. It provides a normative framework for policy and decision-making that puts fairness and justice for all at the forefront. The manifestations of solidarity especially concerned with justice - solidarity in leadership, solidarity in achieving fair shares, solidarity in support, intragenerational solidarity and intergenerational solidarity – can structure open-textured, discretionary decision-making, to redress past injustice and achieve future justice.

<sup>&</sup>lt;sup>66</sup> Ibid; Petra Minnerop, 'The "Advance Interference-Like Effect" of Climate Targets: Fundamental Rights, Intergenerational Equity and the German Federal Constitution Court' (2022) 34(1) *Journal of Environmental Law* 135.

<sup>&</sup>lt;sup>67</sup> (2019) 234 LGERA 257 at [399], [415], [416], [696].

<sup>68 [2022]</sup> QLC 21 at [1938].