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Climate Litigation Network's submission: 'Assessment of EU Climate Mitigation Targets'
European Commission's Public Consultation on the EU 2040 Climate Mitigation Target

The Climate Litigation Network welcomes the opportunity to provide input to the European Commission's public consultation in the context of the process aimed at the establishment of a EU-wide 2040 target for greenhouse gas (GHG) reductions ('the 2040 target').

The Climate Litigation Network (CLN) is a project of the Urgenda Foundation, a Dutch sustainability non-profit organisation. We provide legal and scientific expertise to support communities around the world to challenge States' inadequate climate mitigation efforts through litigation.

Our submission focuses on the content of the 2040 target, in light of the EU's commitments and obligations under international law and best available climate science.

Respectfully submitted,

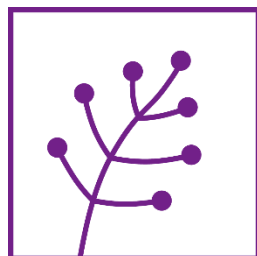


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**Climate
Litigation
Network**



Assessment of EU Climate Mitigation Targets

submitted by the Climate Litigation Network in the context of

European Commission’s Public Consultation on the EU 2040 Climate Mitigation Target

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1. Key messages

- The adoption of the 2040 target must be the occasion for the EU to pursue a fair and equitable approach to climate mitigation action to hold global temperature increase below 1.5°C, making up for current delays and promptly accelerating the achievement of climate neutrality in Europe.
- The EU has committed under international law to “take the lead” in the fight against global warming, by assessing and pursuing global climate mitigation efforts on the basis of principles of equity, common but differentiated responsibilities and respective capabilities, precaution, and recourse to best available science. A fair distribution of mitigation efforts, in line with the 1.5°C temperature limit, is a crucial enabler for accelerated climate action at the global level.
- The European Scientific Advisory Board on Climate Change (ESABCC) has taken these provisions as the legal starting point for assessing the EU’s fair share of emissions in its report ‘Scientific advice for the determination of an EU-wide 2040 climate target and a greenhouse gas budget for 2030–2050’ (‘the ESABCC Report’).
- Despite its commitments, the existing 2030 EU-wide climate mitigation target (55% by 2030 compared to 1990 levels including LULUCF) (‘the 2030 target’) does *not* reflect the EU’s ‘fair share’ of global climate mitigation efforts, as experts have found. This lack of ambition is already depleting a large portion of the remaining 1.5°C carbon budget, threatening the achievement of effective human rights and fundamental freedoms protection in Europe and across the globe.
- A fair approach to global mitigation efforts would require the EU to achieve at the very least carbon neutrality in the current decade and net negative emissions right after 2030.
- Given the EU’s current (inadequate) 2030 target, achieving the EU’s fair share of emissions will require that ambitious domestic emission reductions are complemented by mitigation measures outside the EU. The 2040 target must reflect the need for increased mitigation ambition; quantify any shortfall between the EU’s fair share and the emissions reductions reflected in the adopted 2040 target; and outline how the EU will address such a shortfall, such as through GHG emissions reductions outside the EU, as recommended by the ESABCC Report.

2. Analysis

2.1. International law and best available science must inform the assessment and implementation of the EU's mitigation efforts

The 2040 target must be informed by the EU's commitments and obligations as a party to the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement (PA),¹ as also acknowledged by the ESABCC.²

The following aspects of the international legal framework should inform the EU's 2040 target:

- prevention of dangerous climate change and protection of human rights;
- recourse to best available science;
- the long-term temperature limit;
- highest possible ambition, and principles of equity and common but differentiated responsibilities; and
- the precautionary principle.

Effective compliance with these international law principles necessitates the EU – one of the most highly developed regions of the world – to *fairly contribute* to global mitigation efforts to hold global temperature increase below 1.5°C (i.e. do its 'fair share').

2.1.1. *Prevention of dangerous climate change and the protection of human rights*

The EU's 2040 target must be informed by the overall objective of the UNFCCC to prevent dangerous climate change,³ and by the EU's obligations with respect to human rights.⁴

The report of the IPCC's Working Group II on the impacts of climate change has been described as an "atlas of human suffering".⁵ The report defines climate change as a "threat to human well-being and planetary health" and documents the severe and pervasive impacts that climate change is already having – and will increasingly have – on human and natural systems.⁶ In particular, it finds that "[g]lobal warming, reaching 1.5°C in the near-term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans",⁷ pushing humankind away from "a livable and sustainable future for all".⁸ The report shows that exceeding the 1.5°C threshold also runs a "high risk" of triggering climate 'tipping points'.⁹ This would escalate into further severe, abrupt, and irreversible climate change, even if global temperatures are subsequently reduced.¹⁰

In line with this, over the past decade, national¹¹ and regional¹² courts and UN human rights institutions¹³ have recognised that: climate change is already having, and will have, a significant impact on the enjoyment of a wide range of human rights; and States have an individual responsibility to prevent further dangerous climate change by reducing their GHG emissions.¹⁴

In the European Union, apex courts in the Netherlands (the *Urgenda* case, 2019),¹⁵ and Germany (the *Neubauer* case, 2021),¹⁶ have determined that the respective State must adopt more ambitious GHG mitigation in order to protect human rights and fundamental freedoms. Avoiding dangerous climate change is therefore a key factor to achieve effective human rights protection across the EU and beyond.

2.1.2. *Recourse to best available science*

The EU's 2040 target must be informed by best available science.

Recourse to best available science operates as an integrative principle throughout the UNFCCC. The Preamble to the UNFCCC expressly recognizes that actions to combat climate change are most effective if they are based on “relevant scientific considerations”, “continually re-evaluated in the light of new findings”.¹⁷ The Preamble of the Paris Agreement also pays particular attention to the role of science, recognising “the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge”.¹⁸

2.1.3. *Long-term temperature limit*

The EU's 2040 target must contribute to holding global temperature increase to below 1.5°C (with at least 50% chance, and no or low overshoot).

This is in line with:

- **International law:** the EU's commitment under the Paris Agreement to hold global temperature increase to “well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C”,¹⁹ and recent recognition by the EU and other States Parties of the importance of limiting global average temperature increase to 1.5°C in the Glasgow (2021)²⁰ and Sharm El-Sheikh (2022)²¹ climate conferences.
- **Scientific developments** that have occurred *since* the Paris Agreement regarding the need to limit global warming to the lower end of the long-term temperature limit in order to prevent dangerous climate change, including the IPCC's Special Report on 1.5°C and Sixth Assessment Report;²² and
- **The findings of the ESABCC:** the ESABCC recommended that the EU 2040 target and GHG budget “be consistent with pursuing efforts to limit global warming to 1.5°C, recognising the reiteration of this goal in the outcomes of the UN climate change conferences in Glasgow (2021) and Sharm El-Sheikh (2022)”.²³ The ESABCC prepared its Report on scenario pathways for achieving climate neutrality in the EU that are in line with limiting global warming to 1.5°C with no or limited overshoot.²⁴

Setting the 2040 target on the basis of a long-term temperature goal which is *higher* than 1.5°C (or which assumes significant *overshoot* of the target before returning to 1.5°C) would expose people within the EU and beyond to an excessive risk of harm.

2.1.4. *Equity and common but differentiated responsibilities*

The EU’s 2040 target must be informed by its commitment under international law to “take the lead”²⁵ in the global effort to prevent dangerous climate change by assessing and implementing its duty to mitigate climate change²⁶ on the basis of the international principles of equity²⁷ and common but differentiated responsibilities and respective capabilities (CBDR-RC).²⁸ Further, the EU has committed (as have other States Parties) to communicate how it considers its NDC to be fair and ambitious.²⁹

This is in line with:

- **International law:** the EU, as a Party to the Paris Agreement, has committed to the principle that its nationally determined contribution will “reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances”.³⁰ The principles of equity and CBDR-RC are “deeply embedded in the UN climate regime”,³¹ and inform States’ mitigation obligations under both treaties.³²
- **Recommendations of the ESABCC:** the ESABCC took these provisions as the legal starting point for assessing the EU’s fair share of emissions.³³ The ESABCC recommended that the EU “consider [...] estimates of *its fair share* of the remaining global carbon budget consistent with limiting global warming to 1.5°C” in order to “deliver a contribution to achieving the temperature goal of the Paris Agreement that is both *fair* and consistent with the physical science of climate change” [emphasis added].³⁴ We outline below how the ESABCC drew upon effort-sharing modelling in line with these principles.
- **National court decisions within the EU:** apex courts in the Netherlands (*Urgenda*, 2019) and Germany (*Neubauer*, 2021) have drawn on the principles of equity and CBDR-RC when determining the level of emissions reductions that are appropriate for developed country governments to adopt in order to prevent dangerous climate change. In *Urgenda* (2019), the Dutch Supreme Court found that, on the basis of the principles of equity and CBDR-RC, “[t]hese general obligations and principles [under the UNFCCC] mean that a *fair distribution* must take place, taking into account the responsibility and state of development of the individual countries [emphasis added]”.³⁵ For this reason, the Supreme Court found that the Dutch State must do its “fair share” in reducing emissions pursuant to its human rights obligations, especially as a developed country.³⁶ Similarly, in *Neubauer* (2021), the German Constitutional Court recalled that the Paris Agreement must be implemented to reflect “equity” and the

principle of CBDR-RC.³⁷ In particular, the Constitutional Court further clarified that Germany’s contribution to global mitigation efforts “must be determined in a way that promotes mutual trust in the willingness of the Parties [of the Paris Agreement] to take action”, notably on the basis of the principle of CBDR-RC.³⁸ The Court highlighted Germany’s historical contribution to global warming, with national per capita CO₂ emissions almost twice as high as the global average.³⁹ We outline the details of the Court’s decision in the box in Part 3 below.

- **Findings of the IPCC:** the IPCC has found that fair and equitable mitigation efforts are crucial for an *effective* global effort to avert dangerous climate change.⁴⁰ In particular, the IPCC has found that: “greater cooperation would ensue if policies are perceived as fair and equitable by all countries”;⁴¹ “treaties that are considered unfair may be hard to implement”;⁴² and “[e]quity and just transitions can enable deeper ambitions for accelerated mitigation”.⁴³

2.1.5. *Precaution*

The UNFCCC expressly requires Parties to take precautionary measures in respect of climate change.⁴⁴ The widespread scientific consensus as regards the causes and effects of climate change plays an important role in lifting the mitigation action required of States where there is a risk of serious or irreversible damage – yet where some uncertainty remains in climate science. This is the case, for example, in relation to the risk of triggering climate ‘tipping points’: States must adopt measures to avoid or reduce this risk, even if there is some uncertainty regarding *when* a climate tipping point may occur, noting the irreversible impacts that would ensue if global warming triggered one or more tipping point.⁴⁵

In line with the precautionary principle, the EU’s 2040 target should *not* rely heavily on carbon dioxide removal (CDR).⁴⁶ In its Report, the ESABCC outlined a range of “environmental risks and technological deployment challenges” associated with CDR,⁴⁷ which formed the basis for *excluding* or “filtering out” certain emissions reduction pathways that rely heavily on CDR with high feasibility concerns.⁴⁸ Such an approach is in line with the latest findings of the IPCC. The IPCC found that while “Carbon Dioxide Removal (CDR) is necessary to achieve net zero CO₂ and GHG emissions both globally and nationally”,⁴⁹ given the risks and feasibility constraints entailed in large-scale deployment, “CDR cannot serve as a substitute for deep emissions reductions”.⁵⁰

National courts in the European Union have also taken into consideration the risks associated with relying on CDR. In *Urgenda* (2019), the Dutch Supreme Court determined that “there is no technology that allows [negative emissions] to take place on a sufficiently large scale”,⁵¹ and that excessive reliance on such technology constituted “irresponsible risks”, which would “run counter to the precautionary principle that must be observed when applying Articles 2 and 8 ECHR and Article 3(3) UNFCCC”.⁵² National courts in Ireland and Germany have taken a similar approach.⁵³

2.2. Application of international law and best available science

Best available science, informed by the above principles of international law, indicates that the EU must reach carbon neutrality around 2030.

We refer to two leading studies that assess States' (including the EU's) 'fair share' of the global mitigation effort in light of international legal principles such as equity and CBDR-RC:

- the assessment by Climate Action Tracker (CAT), an independent scientific project established by a consortium with Climate Analytics and NewClimate Institute;⁵⁴ and
- a peer-reviewed study by Professor Rajamani, notably Coordinating Lead Author of the IPCC AR6 Chapter 14 on International Cooperation, and a team of leading climate scientists ('Rajamani et al (2021)').⁵⁵

The CAT and Rajamani et al (2021) studies represent best available science regarding 'effort-sharing methodologies' – the body of academic research that is concerned with the distribution of the global efforts to reduce GHG emissions between States in order to prevent specified levels of global warming.⁵⁶ These methodologies, developed by the scientific community, divide the remaining emission space (or carbon budget) between States, based on different interpretations of fairness and equity.⁵⁷

In its Report, the ESABCC provides an overview of a range of effort-sharing approaches that are applied in light of principles of international law.⁵⁸ The ESABCC Report refers, in particular, to the study by Pelz et al (2023) – which was prepared for the ESABCC – and which draws on the methodology adopted by Rajamani et al (2021).⁵⁹ Pelz et al (2023) describes the analysis by Rajamani et al (2021) as “a notable step forwards in justifying and selecting from the myriad of allocation approaches available in the literature on the basis of international legal precedent”.⁶⁰

The CAT and Rajamani et al (2021) studies are significant *new* developments because they assess more than 30 individual effort-sharing papers (that all apply their own interpretations of fairness and equity). They determine their results based on *all* the interpretations of fairness in the academic literature giving each category of interpretation equal weight, and thus represent the scientific “common ground” as assessed by the best available science.

The findings of these studies are as follows:

- The Climate Action Tracker found that, in order to contribute its 'fair share' of the global mitigation efforts to hold global temperature below 1.5°C, the EU must pursue an emissions reduction target of **at least 95% by 2030 compared to 1990 levels** (excluding LULUCF);⁶¹

- The Rajamani et al (2021) study found that the EU would be required to pursue an emissions reduction target of **110% by 2030 compared to 1990 levels** (excluding LULUCF) in order to hold global temperature below 1.5°C and act consistently with principles of international environmental law (as outlined above).⁶²
- Along the same lines, the ESABCC Report has also “assessed the fairness of the EU’s contribution under different ethical principles”.⁶³ It found that “under some of these principles, **the EU has already exhausted its fair share of the global emissions budget**”.⁶⁴ It confirmed that “[a]dditional efforts to increase the ambition beyond 55% (**up to 70% or more by 2030**) would considerably decrease the EU’s cumulative emissions until 2050, and **thus increase the fairness of the EU’s contribution** to global mitigation [emphasis added].”⁶⁵

As such the current EU-wide 2030 mitigation target (a reduction of 55% by 2030 compared to 1990 levels),⁶⁶ falls *well below* the ranges indicated by these studies.

The process aimed at the adoption of the 2040 target should tackle this inconsistency and assess how the EU can address these shortcomings. The EU can close this gap and achieve its ‘fair share’ by – in addition to rigorous *domestic* emissions reductions within the EU – contributing to mitigation efforts in countries *outside the EU*. According to the ESABCC, “[b]ecause none of the assessed pathways towards climate neutrality fully align with the fair share estimates, additional measures need to be pursued to account for this shortfall.”⁶⁷ Specifically, its Report found that: “[a]mbitious domestic emission reductions need to be complemented by measures outside the EU to achieve a fair contribution to climate change mitigation.”⁶⁸

2.3. Current efforts are not informed by international law and best available science

The EU’s current 2030 target is *not* informed by international law and best available science regarding the necessary emissions reductions to hold global temperature increase below 1.5°C. The development of the 2040 target must seek to address these shortcomings.

2.3.1. *The 2030 target is incompatible with 1.5°C*

The Climate Action Tracker found that the EU’s 2030 target threatens the feasibility of staying within the 1.5 °C threshold of the Paris Agreement: if all countries were to follow the same level of mitigation ambition, this would result in global warming between 2 and 3°C (with a 66% probability) by 2100.⁶⁹

2.3.2. *The EU has failed to take into account fair share in the adoption of its 2030 target*

In adopting the 2030 target, there is little evidence that EU institutions considered the EU’s ‘fair share’ of global mitigation efforts to hold temperature increase below 1.5°C. Overall, the EU institutions have *not* substantiated how the 2030 target would reflect a fair and equitable contribution towards the Paris Agreement’s long-term temperature limit.⁷⁰

Specifically:

- In 2020, the Commission admitted that the choice of the 2030 target was shaped by a “political mandate”.⁷¹
- The Commission indicated that it had only thoroughly considered mitigation targets that could “be achieved in a responsible manner”, i.e. through the lens of the “negative social and economic impacts associated with the transition” towards a carbon neutral society.⁷² Thus, it did *not* assess the feasibility of any EU-wide GHG mitigation target that would be more ambitious than a 55% reduction goal.⁷³
- The Commission did not indicate that it took into account the “additional severe risks”⁷⁴ that human and natural systems will suffer – in Europe and across the globe – because of its insufficient climate mitigation action. This ignores the findings of the IPCC that the “magnitude and rate of climate change and associated risks depend strongly on *near-term* mitigation” [emphasis added].⁷⁵
- Nor did the Commission appear to place any weight on the “negative social and economic impacts”⁷⁶ that insufficient climate mitigation action would trigger across the EU and beyond. This shortcoming is incompatible with the findings of the IPCC, highlighting that “the later climate policies are implemented, the higher the expected stranded assets and the societal, economic and political strain of strengthening action.”⁷⁷

All of these shortcomings must be addressed in the process aimed at the adoption of the 2040 target, as outlined in our Recommendations (see below).

2.3.3. *The German climate case Neubauer and the EU 2030 mitigation target*

The decision of the German Constitutional Court in the *Neubauer* case is relevant to the shortcomings of the EU’s 2030 target – which must be addressed in the development of the 2040 target.

The case concerned a challenge to the Germany’s (then) 2030 mitigation target under the Federal Climate Change Act (2019) which established a GHG emissions reduction goal of 55% by 2030 compared to 1990 levels (i.e. the same level of the EU’s current 2030 target).⁷⁸

The plaintiffs argued that the 2030 target was insufficient and violated their constitutionally protected human rights.⁷⁹ In its judgment, the Constitutional Court found the Federal Climate Change Act to be unconstitutional on the basis of incompatibility with the protection of the plaintiffs’ fundamental freedoms.⁸⁰



The Court reviewed scientific evidence from Germany’s independent environmental agency which illustrated that – under the reduction target of 55% by 2030 – almost the entirety of Germany’s fair share of the remaining global carbon budget (calculated on a per capita basis) would be exhausted by the end of 2030.⁸¹

The Court found that this would require a drastic reduction of emissions after 2030, which would then necessitate significant sacrifices and restrictions on personal freedoms in order to stay within Germany’s fair share of the carbon budget.⁸² Therefore, the Court found that the Federal Climate Change Act which legislated the 55% reduction target for 2030 infringed the plaintiffs’ fundamental freedoms. The Court established that: “one generation must not be allowed to consume large portions of the CO₂ budget while bearing a relatively minor share of the reduction effort, if this would involve leaving subsequent generations with a drastic reduction burden and expose their lives to serious losses of freedom”.⁸³

The Court accordingly ordered German lawmakers to amend the Federal Climate Change Act. In order to comply with the Constitutional Court’s decision, the German Government adopted a new mitigation goal of 65% by 2030 (compared to 1990 levels) and committed to achieving climate neutrality by 2045 – five years sooner than its original target.⁸⁴

3. Conclusion

The EU’s existing 2030 target does not reflect its ‘fair share’ under its international climate commitments; it threatens the feasibility of keeping the 1.5°C long-term temperature limit within reach; and it will further exacerbate climate-induced violations of human rights and fundamental freedoms. If increasingly dangerous climate change is to be avoided, the process leading to the adoption of a 2040 EU-wide climate mitigation target must be the occasion for the EU to ‘do its part’ – and make up for current delays – through a fair and equitable approach to the distribution of global mitigation efforts; and thus help anticipate the achievement of climate neutrality in the EU as soon as possible.

4. Recommendations

The development of the 2040 target must be informed the principles of international law and best available science as outlined above, and address the ‘fair share’ shortcomings of the 2030 target. On the basis of the findings highlighted above, our recommendations are as follows:

- The 2040 target must:
 - Aim at holding global temperature increase to no more than 1.5°C (with at least 50%, and no or low overshoot), as recommended by the ESABCC;
 - Reflect the EU’s ‘fair share’ of the remaining global carbon budget for this limit, which necessitates achieving EU-wide climate neutrality as soon as possible and, in any case, well before 2050, as recommended by the ESABCC;
 - Quantify any “shortfall” between the emissions reductions contemplated in the adopted target and the emissions reductions that are needed in line with the EU’s fair share, and outline how the EU will address such a gap, such as through emissions reductions outside the EU, as recommended by the ESABCC;
 - Include a 2035 EU-wide mitigation target and intermediate GHG budgets to ensure an equal distribution of GHG reductions at the EU level over the entire period to 2040, and thus avoid deferring mitigation efforts to the future; and
 - Incorporate strong monitoring mechanisms aimed at effectively assessing and enforcing Member States’ compliance with EU climate mitigation targets (2030, 2035, 2040, and intermediate GHG budgets) well before their deadline.
- In developing its proposal for the 2040 target, the European Commission must:
 - Specify how the target reflects the EU’s ‘fair share’ of global mitigation efforts in light of the EU’s international commitments under Paris Agreement and UNFCCC;
 - Take into account the ‘cost of inaction’ (i.e. the overall societal impacts that unfair EU mitigation efforts would entail, such as: the risk of discouraging other countries from achieving their ‘fair share’ of mitigation efforts; the increase in climate-related harms, and notably the risk of triggering climate ‘tipping points’; and thus the increased likelihood of widespread violations of human rights and fundamental freedoms); and
 - Ensure adequate and transparent public participation throughout the process leading to the proposal of the 2040 mitigation target, clearly explaining how the input of civil society and other stakeholders has been taken into account.

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¹ The UNFCCC entered into force on 21 March 1994. The EU formally ratified the Paris Agreement on 5 October 2016, thus enabling its entry into force on 4 November 2016.

² European Scientific Advisory Board on Climate Change, *Scientific advice for the determination of an EU-wide 2040 climate target and a greenhouse gas budget for 2030–2050* (2023), 3.1, p. 26. Available at: <https://climate-advisory-board.europa.eu/reports-and-publications/scientific-advice-for-the-determination-of-an-eu-wide-2040>.

³ See Article 2 UNFCCC. The ultimate objective of the UNFCCC is to “achieve, in accordance with the relevant provisions of the Convention, stabilization of [GHG] concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”.

⁴ See e.g. Paris Agreement, Preamble: “Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights”.

⁵ Speech by UN Secretary General Antonio Guterres, Press conference for launch of IPCC WGII Report (28 February 2022). Available at: <https://media.un.org/en/asset/k1x/k1xcijxjhp>.

⁶ Intergovernmental Panel on Climate Change, AR6 Working Group II, *Climate Change 2022: Impacts, Adaptation and Vulnerability*, SPM.D.5.3.

⁷ Ibid, SPM B.3.

⁸ Ibid, SPM D.5.3.

⁹ Ibid, Annex II, Glossary, p. 2925: “A critical threshold beyond which a system reorganizes, often abruptly and/or irreversibly”. See also: Intergovernmental Panel on Climate Change, AR6 Working Group I, *Climate Change 2021: The Physical Science Basis*, Full Report, Chapter 4, p. 633: “Tipping points may involve global or regional climate changes from one stable state to another stable state or to changes that occur faster than the rate of change of forcing (Alley et al., 2003) and include shifts from one equilibrium state to another and other responses of the climate system to external forcing.” IPCC, AR6 WGII (2022) (n 6) Technical Summary, p. 70: the risk of triggering tipping points is “[p]rojected to transition to high risk” for a warming level between 1.5°C – 2.5°C”.

¹⁰ IPCC, ‘Special Report on the impacts of global warming of 1.5°C above pre-industrial levels’ (2018), Chapter 3, p. 262: “Tipping points refer to critical thresholds in a system that, when exceeded, can lead to a significant change in the state of the system, often with an understanding that the change is irreversible”.

¹¹ See e.g. *State of the Netherlands (Ministry of Economic Affairs and Climate Policy) v Stichting Urgenda* (2019) ECLI:NL:HR:2019:2007 (official translation) (Supreme Court of the Netherlands, Civil Division) (‘Urgenda’); *Future Generations v Ministry of the Environment and Others “Demanda Generaciones Futuras v Minambiente”* [2018] 11001 22 03 000 2018 00319 00 Unoff Transl (Colombia Supreme Court). (‘Future Generations’); *Ashgar Leghari v Federation of Pakistan* [2015] Case No WP No 255012015 (Lahore High Court) . (‘Leghari’); *VZW Klimaatzaak v Kingdom of Belgium & Others* [2021] Belgium, Court of First Instance of Brussels (unofficial translation) (‘Klimaatzaak’). *Neubauer and Others v Germany* [2021] German Federal Constitutional Court 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20 (official translation) (‘Neubauer’). *Shrestha v Office of the Prime Minister et al* Decision no 10210, NKP, Part 61, Vol 3 (Supreme Court). (‘Shrestha’). *PSB et al v Brazil (on Climate Fund)* [2022] ADPF 708 (Federal Supreme Court of Brazil) (‘PSB et al’). For a detailed analysis, Lucy Maxwell, Sarah Mead and Dennis Van Berkel, ‘Standards for Adjudicating the next Generation of Urgenda-Style Climate Cases’ [2021] *Journal of Human Rights and the Environment*.

¹² See e.g. the Inter-American Court of Human Rights, *The Environment and Human Rights (State Obligations in Relation to the Environment in the Context of the Protection and Guarantee of the Rights to Life and to Personal*



Integrity – Interpretation and Scope of Articles 4(1) and 5(1) of the American Convention on Human Rights (Advisory Opinion) OC-23/18 (2017) (ser A) No 23 Inter-American Court of Human Rights (IACtHR) [47, 54].

¹³ See e.g. ‘Joint Statement of Five UN Human Rights Treaty Bodies on Human Rights and Climate Change’ (Committee on the Elimination of Discrimination Against Women; Committee on Economic, Social and Cultural Rights; Committee on the Protection of the Rights of All Migrant Workers and Members of their Families; Committee on the Rights of the Child; Committee on the Rights of Persons with Disabilities 2019). *Billy et al v Australia* (2022) UN Doc CCPR/C/135/D/3624/2019. *Sacchi et al v Argentina et al* (2021) UN Doc CRC/C/88/D/104-108/2019 (Committee on the Rights of the Child). UN Human Rights Committee (HRC), ‘General Comment No. 36, Article 6 (Right to Life), 3 September 2019, CCPR/C/GC/35’. UN Human Rights Committee (HRC), *Communication submitted by Ioane Teitiota* [2015] Human Rights Committee Communication No 2727/2016, UN Doc CCPR/C/127/D/2728/2016 (7 January 2020).

¹⁴ See Maxwell, Mead and van Berkel (n 11), Part 3.2, pp 44 – 46 (noting that since publication, the Ontario Superior Court of Justice has *not* upheld the claim in the case of *Mathur v. His Majesty the King in Right of Ontario*, and as of 2023, the case is on appeal).

¹⁵ *Urgenda* (Supreme Court, 2019) (n 11).

¹⁶ *Neubauer* (n 11).

¹⁷ See UNFCCC Preamble, and Articles 4.1; 4.2, 5, 7.2, 9, 21 UNFCCC.

¹⁸ See Preamble of the Paris Agreement.

¹⁹ Paris Agreement, Art 2.1(a).

²⁰ This refers to three decisions adopted during COP26 in Glasgow: 1/CP.26; 1/CMP.16, 1/CMA.3. See in particular, CMA.3 [22]; CP.26 [17].

²¹ This refers to three decisions adopted during COP27 in Sharm el-Sheikh, and notably: 1/CP.27 (‘Sharm el-Sheikh Implementation Plan’).

²² IPCC, *Special report on 1.5 °C* (n 10); IPCC, AR6 WGII (2022) (n 6).

²³ See ESABCC Report, (n 2) 1.4.1, p. 22.

²⁴ *Ibid*, pp. 14, 22.

²⁵ See Article 4.2(a) UNFCCC.

²⁶ See Article 4.1 (b) UNFCCC, creating a binding, general obligation on all Parties to formulate, implement, publish, and regularly update programmes containing measures to mitigate climate change. Article 4.2 (a) UNFCCC imposes additional obligations on developed Parties – like the EU – by committing them “specifically” to take mitigation measures “by limiting [their] anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs”.

²⁷ Article 3.1, 3.2 and 3.4 UNFCCC.

²⁸ Article 3.1 UNFCCC.

²⁹ UNFCCC, “Decision 4/CMA.1” in *Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on the third part of its first session, held in Katowice from 2 to 15 December 2018*. (2018).

³⁰ Paris Agreement, Article 4.3.

³¹ Daniel Bodansky, Jutta Brunnée and Lavanya Rajamani, *International Climate Change Law* (Oxford University Press 2017) 27.

³² UNFCCC, Art 3.1, Art 4.1; Paris Agreement, Preamble, Art 4.1, 4.2 and 4.4. See also: Lavanya Rajamani, *Differential Treatment in International Environmental Law* (Oxford University Press 2006) 191; Patrícia Galvão Ferreira, “‘Common But Differentiated Responsibilities’ in the National Courts: Lessons from *Urgenda v. The Netherlands*” (2016) 5 *Transnational Environmental Law* 329, 349.

³³ See ESABCC Report (n 2) p. 26.

³⁴ *Ibid*, p. 14.

³⁵ *Urgenda* (Supreme Court, 2019) (n 11) para [6.2].

³⁶ *Ibid* at [6.3] - [6.5].

³⁷ *Neubauer* (n 11) para [29].

³⁸ *Ibid* at [225].

³⁹ *Ibid* at [8].

⁴⁰ Intergovernmental Panel on Climate Change, AR6 Working Group III, *Climate Change 2022: Mitigation of Climate Change*, 2022, Chapter 4 p. 473: “The literature suggests a relationship between the effectiveness of cooperative action and the perception of fairness of such arrangements.” See also Intergovernmental Panel on Climate Change, AR5 Working Group III, *Climate Change 2014: Mitigation of Climate Change*, Chapter 4 p. 291: “At the international level, an equitable regime with fair burden sharing is likely to be a key condition for an effective global response.” IPCC, AR5 WGIII (2014) SPM, p. 5: “Effective mitigation will not be achieved if



individual agents advance their own interests independently. [...] International cooperation is therefore required to effectively mitigate GHG emissions and address other climate change issues.”

⁴¹ IPCC, AR6 WGIII (2022) (n 40), Chapter 1 p. 156: “The AR5 noted that greater cooperation would ensue if policies are perceived as fair and equitable by all countries along the spectrum of economic development – implying a need for equitable sharing of the effort.”

⁴² IPCC, AR6 WGIII (2022) (n 40), Chapter 1 p. 170: “treaties that are considered unfair may be hard to implement (Klinsky et al. 2017; Liu et al. 2017). Lessons from experimental economics show that people may not accept a distribution that is considered unfair, even if there is a cost of not accepting (Gampfer 2014).”

⁴³ IPCC, AR6 WGIII (2022) (n 40) SPM D.3.3 “Equity and just transitions can enable deeper ambitions for accelerated mitigation”.

⁴⁴ Article 3.3 UNFCCC.

⁴⁵ IPCC, AR6 WGI (n 9) SPM C.3.2: “probability of low-likelihood, high impact outcomes increases with higher global warming levels (*high confidence*). Abrupt responses and tipping points of the climate system, such as strongly increased Antarctic ice sheet melt and forest dieback, cannot be ruled out (*high confidence*)”.

⁴⁶ IPCC, *Special report on 1.5 °C* (n 10) Chapter 4 p. 394: “Carbon dioxide removal (CDR) refers to the process of removing CO₂ from the atmosphere. Since this is the opposite of emissions, practices or technologies that remove CO₂ are often described as achieving ‘negative emissions’. The process is sometimes referred to more broadly as greenhouse gas removal if it involves removing gases other than CO₂. There are two main types of CDR: either enhancing existing natural processes that remove carbon from the atmosphere (e.g., by increasing its uptake by trees, soil, or other ‘carbon sinks’) or using chemical processes to, for example, capture CO₂ directly from the ambient air and store it elsewhere (e.g., underground)”. IPCC, AR6 WGIII (2022) (n 39) Annex I Glossary, p. 1796: “Anthropogenic activities removing carbon dioxide (CO₂) from the atmosphere and durably storing it in geological, terrestrial, or ocean reservoirs, or in products. It includes existing and potential anthropogenic enhancement of biological or geochemical CO₂ sinks and direct air carbon dioxide capture and storage (DACCS), but excludes natural CO₂ uptake not directly caused by human activities.”

⁴⁷ See ESABCC Report (n 2) p. 37.

⁴⁸ *Ibid.*, p. 35.

⁴⁹ IPCC, AR6 WGIII (2022) (n 40) Box TS.10, p. 114.

⁵⁰ *Ibid.*, 12.3, Cross-Chapter Box 8, p. 1262; see also IPCC, AR6 WGIII (2022) (n 39) Chapter 6, sub-section 6.6.2.7, p. 681.

⁵¹ *Urgenda* (Supreme Court, 2019) (n 11) [7.2.5].

⁵² *Ibid.*

⁵³ *Irish Climate Case* (n 11) at [3.4]. The need to take a precautionary approach in setting climate policy was also emphasised by the German Constitutional Court in *Neubauer* (n 11) at [229].

⁵⁴ The Climate Action Tracker’s “fair share range” rating system is based on published scientific literature (see below) on what a country’s total contribution would need to be to make a fair contribution to implementing the Paris agreement, supplemented by own analysis to close data gaps. An overview of CAT’s fair share assessment methodology is available here: <https://climateactiontracker.org/methodology/cat-rating-methodology/fair-share/>.

⁵⁵ Lavanya Rajamani and others, ‘National “Fair Shares” in Reducing Greenhouse Gas Emissions within the Principled Framework of International Environmental Law’ [2021] *Climate Policy*. This study “examines the ambition level required of countries according to principles of international environmental law (hereafter referred to as the “IEL ambition assessment”). See Climate Analytics, *Achieving the 1.5°C Limit of the Paris Agreement: An Assessment of the Adequacy of the Mitigation Measures and Targets of the Respondent States in Duarte Agostinho v Portugal and 32 other States*, 2022, p. 40: “The approach relies on the same framework as the CAT, with an aim to determine an appropriate ambition level for countries from the perspective of ensuring that the sum of individual contributions is collectively compatible with the Paris Agreement’s LTTG. This is the first study to examine national fair shares with reference to principles of international environmental law.”

⁵⁶ See for example, Niklas Höhne, Michel den Elzen and Donovan Escalante, ‘Regional GHG Reduction Targets Based on Effort Sharing: A Comparison of Studies’ (2014) 14 *Climate Policy* 122.

⁵⁷ See IPCC, AR5 WGIII (2014) (n 40) Table 6.5, p. 458, for an overview of the categories of effort-sharing approaches.

⁵⁸ ESABCC Report (n 2) p. 27.

⁵⁹ Pelz, S., Rogelj, J., Riahi, K., 2023, *Evaluating equity in European climate change mitigation pathways for the EU Scientific Advisory Board on Climate Change*, International Institute for Applied Systems Analysis, Laxenburg, p. 18. Available at <https://pure.iiasa.ac.at/18830>.

⁶⁰ Pelz et al (2023), p 15.

⁶¹ See Climate Action Tracker, EU, <https://climateactiontracker.org/countries/eu/>. See also Climate Analytics, *Achieving the 1.5°C Limit of the Paris Agreement* (n 55), p. 53.

⁶² See Rajamani et al. (n 55). See also *Ibid*, p. 54.

⁶³ ESABCC Report (n 2) p. 10.

⁶⁴ *Ibid*.

⁶⁵ *Ibid*.

⁶⁶ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law').

⁶⁷ ESABCC Report (n 2) p. 10.

⁶⁸ *Ibid*.

⁶⁹ Climate Analytics, *Achieving the 1.5°C Limit of the Paris Agreement* (n 55), p. 53.

⁷⁰ *Ibid*, p. 52: the EU made "no reference to any principle of equity and offers no explanation as to how the EU has determined its fair share of the emissions reductions envisaged by the pathways that limit warming to 1.5°C as outlined in SR1.5, nor how it would meet its fair share through a combination of domestic emissions reductions and support for emissions reductions overseas."

⁷¹ European Commission, *Impact Assessment* (accompanying the document: Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Stepping Up Europe's 2030 Climate Ambition - Investing in a Climate-Neutral Future for the Benefit of Our People*, 2020), p. 41.

⁷² *Ibid*, pp. 41, 42.

⁷³ *Ibid*. In April 2020, Member of the EU Parliament and Rapporteur for the Climate Law Jytte Guteland (Environment, Public Health and Food Safety Committee of the European Parliament) presented a report on the initial proposal advanced by the European Commission for a new 2030 EU-wide mitigation target. Inter alia, the Rapporteur inferred that the 55% target by 2030 was incompatible with the minimum global mitigation efforts identified by "the most recent scientific evidence" and could not "ensure that Europe honours the Paris Agreement and the temperature targets therein, particularly the objective to limit the increase in temperature to 1.5°C above pre-industrial levels". As such, the Rapporteur proposed the adoption of a mitigation target of 65% by 2030 (compared to 1990 levels). The Rapporteur recalled that – while more ambitious and in line with the global average of required mitigation efforts – a 65% mitigation goal was still not reflective of "equity-related issues such as per capita emissions or responsibility for historical emissions." See Draft report on the proposal for a regulation of the European Parliament and of the Council establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law) (COM (2020)0080 – C9-0077/2020 – 2020/0036(COD)), available at: https://www.europarl.europa.eu/doceo/document/A-9-2020-0162_EN.html#title2

⁷⁴ IPCC, AR6 WGII (2022) (n 6) SPM B.6.

⁷⁵ *Ibid*, SPM B.4. See also SPM B.6: "If global warming transiently exceeds 1.5°C in the coming decades or later (overshoot), then many human and natural systems will face additional severe risks, compared to remaining below 1.5°C (*high confidence*)."

⁷⁶ As referred to by the European Commission, *Impact Assessment* (n 71).

⁷⁷ IPCC, AR6 WGIII (2022) (n 40) Chapter 3, p. 356.

⁷⁸ Federal Climate Change Act (*Bundes-Klimaschutzgesetz*), Part 2, section 3(1).

⁷⁹ See *Neubauer* (n 11). They called on the Constitutional Court to declare that the legislature is required to issue new GHG reduction quotas aimed at further cutting Germany's emissions.

⁸⁰ Federal Constitutional Court, *Constitutional complaints against the Federal Climate Change Act partially successful*, Press release, 29 April 2021.

⁸¹ *Neubauer* (n 11) at [233] - [234].

⁸² *Ibid* at [184] - [186]. The Court relied on the concept of "advance interference-like effect" (*eingriffsähnliche Vorwirkung*) to assess the future implications of current legislative determinations addressing climate change.

⁸³ *Ibid* at [192].

⁸⁴ The German Federal Government presented an amendment to the Federal Climate Change Act on 12 May 2021, passed by the Bundestag on 24 June 2021, and by the Federal Council on 25 June 2021. Available at: <https://www.bundesregierung.de/breg-de/themen/klimaschutz/klimaschutzgesetz-2021-1913672>.