

The narrowing legal operating space for climate action

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Buttressed by scientific developments, law is catching up with corporate and state climate inaction; a new era of accountability may follow.

A decade on from the adoption of the Paris Agreement, global temperatures are on the cusp of bursting through its principal goal, to limit warming to 1.5°C. Human-caused global warming reached 1.36°C in 2025 and, at present rates, enough emissions will have been produced to push temperatures past 1.5°C within three years.¹ How are legal rights, duties, and obligations responding to the world's failure to limit climate risks within acceptable bounds?²

A common response, reflecting a widely-held narrative of despondency about ineffective legal climate protection, is 'not enough'. Yet, even as Paris overshoot territory approaches, all is not lost. Scientific advancements are facilitating legal processes that constrain state and corporate actors' space to emit greenhouse gases and lead to accountability for harms that their emissions cause.

Legal intransigence on climate

Law commonly lags scientific developments. This reflects many legal systems' reliance on social and ethical understanding, acceptance, and interpretation of science. These processes favour clearly visible impacts, rooted in geographically and temporally proximate cause-and-effect relationships. Climate change does not conform to that description: emissions anywhere affect impacts everywhere which persist for decades or centuries and are the consequence of cumulative emissions of many actors.³

This matters more than it should. After all, there is no strong legal or principled reason why apparent remoteness of cause-and-effect should imply a different legal status, provided the evidence of causation is clear. Indeed, substantively the same scientific methods underpin our understanding of the impacts of climate change and the impacts of toxic substances and other forms of environmental pollution, although legal enforcement is much more common for the latter.⁴ Delays in the legal response to scientific insight matter. The carbon pollution that has taken the world to the brink of 1.5°C is over a century in the making. Yet, despite decades of scientific understanding of the dangers of climate change and near-universal ratification of the Paris Agreement, global emissions are as high as ever.

Legislation driving climate action

Governments are starting to take meaningful action. Climate considerations are increasingly woven into the legislation and regulation that governs economies.⁵ The UK's 2008 Climate Change Act was the first long-term legally-binding framework for a state to cut carbon emissions, updated in 2019 to commit to reaching net-zero greenhouse gas emissions by 2050. 107 countries covering 82% of global greenhouse gas emissions have followed suit and developed net-zero targets.⁶ To implement these goals, several states have introduced policies

to green public procurement and require companies to make climate disclosures and develop transition plans.⁷ Among the most ambitious proposals for such transition planning rules is the beleaguered directive that would require the European Union's largest companies to develop and put into effect a climate transition plan that includes emission cuts aligned with the goals of Paris Agreement.ⁱ

Still, emission-reduction laws are limited and handicapped by uneven, patchy, and slow implementation. Climate action is not necessarily contingent on laws and compulsion, but clear and stable legal frameworks supporting decarbonisation create favourable conditions and, crucially, accountability.

Litigation enforcing legal duties

Where legislative developments are perceived to fall short, parties have taken to the courts. Legal norms and principles are often written to permit recurrent interpretation such that they remain effective in resolving present-day problems like those presented by climate change.⁸ To do so, judges lean on scientific evidence that facilitates quantitative interpretations of legal duties. For instance, research showing the emissions that can be produced if global warming is to be limited to a given level (the 'remaining carbon budget') provide a factual basis for articulating what states and companies need to do (or, more commonly, not do) to act consistently with the Paris Agreement temperature goal. Climate change attribution and projections show the physical and humanitarian consequences of past greenhouse gas emissions and the consequences of climate inaction. Longstanding legal obligations to protect human rights and not inflict harm on other parties, among others, can thus be brought to bear in the context of climate change.

Since most countries lack sufficiently strong emission-reduction laws and few companies face obligations to reduce emissions, scientifically-informed interpretation of pre-existing legal norms has come to the fore. In growing numbers of cases, lawyers asked courts to impose mitigation obligations on states and corporations.⁹ In a notable example, Dutch NGO Milieudefensie sued Shell in 2019 arguing that Shell had an obligation to reduce its emissions, based on a societal duty of care which was, in turn, informed by human rights. The court of first instance agreed and instructed Shell to reduce its emissions, including those of the fossil fuels it sells, by 45% by 2030.¹⁰ On appeal, the court upheld that Shell had an obligation to reduce its emissions, but stopped short of imposing specific requirements on the company.¹¹ Similarly, the European Court of Human Rights found Switzerland's lack of adequate climate targets was in violation of the European Convention on Human Rights.¹² Courts have also found new high-emitting projects such as coal mines¹³ to be inconsistent with legal duties under domestic law or derived from the Paris Agreement.

Accountability for climate change impacts

Lawsuits are also targeting a potentially larger source of corporate liability. Carbon majors had long predicted that the CO₂ emissions produced by their products would cause substantial climate change impacts,¹⁴ but the costs of this vast externality have been borne largely by others. By one recent estimate, the emissions of the 25-highest emitting companies from 1985-2018 resulted in around US\$60 trillion in global climate damages.¹⁵ Legal developments, facilitated by developments in attribution science, may destabilise this status quo.

Earlier this year, in a claim brought by a Peruvian claimant, a German court found that a high-emitting company could, in principle, be held legally responsible for climate change impacts resulting from its emissions. The claimant also needed to demonstrate that the flood risk was the result of climate change, a question that attribution science can answer.³ However the claim was ultimately unsuccessful as the court adjudged a catastrophic glacial lake outburst flood affecting the claimant's property, the basis for the claim, to be insufficiently imminent.¹⁶ Similarly, Vermont is one of several US states to have passed a Climate Superfund Act which permits the state to recover losses caused by climate change from fossil fuel companies.¹⁷ Lawsuits and policy could redirect the costs of greenhouse gas emissions back to those responsible for them, undermining the profitability of emitting activities.¹⁸ With attribution science now able to quantify the impacts of the emissions of individual entities, such as countries or companies, such claims are brought from an even stronger scientific basis.¹⁹

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The last decades have delivered legal regimes that, despite their flaws and jurisdictional variation, effect unprecedented limits on corporate and state climate conduct. Accountability for climate harms is closer than ever, buttressed by developments in climate change attribution science that elucidate the humanitarian and economic impacts of carbon pollution.²⁰ Recent judgements affirmed the principle of corporate liability for climate impacts (in Germany) and responsibilities to rapidly cut emissions (in the Netherlands) even if they have not always found explicit breaches of legal responsibilities.

A chasm has grown between legal duties and the conduct of many actors. Insufficient climate action may prove to be a misstep that has left actors teetering on the precipice of a cliff of legal risk. The misalignment of state and corporate action with their legal obligations means that in the aggregate, companies and states are breaching their legal duties. It is unpredictable as to who will be held responsible but recent court decisions suggest that such liability may be just around the corner. The chance that such risks will materialise means legal risk is widespread for firms.¹⁸

Many may find a firm legal response to the injustices of climate change overdue. The confluence of an increasingly authoritative body of climate scientific evidence and apparent judicial openness to interpreting existing law in the context of climate change raises the prospect that this may soon change.

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ⁱ Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859 (Text with EEA relevance) (CSDDD), Art. 22.