4

The Quest for Butterfly Climate Adjudication

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4.1 INTRODUCTION

This chapter argues that low-profile climate litigation, such as routine administrative law cases, have significant transformative potential and should receive more attention. High-profile climate litigation, such as structural constitutional claims, tort-based cases against the fossil fuel industry, and public international law cases, raise awareness and are highly relevant to advancing legal climate protection. However, around the world, routine climate-relevant claims have had unexpected positive impacts, and we argue that advancing such cases in a coordinated manner could create a "butterfly effect." In most cases, courts do not hand down spectacular, precedent-breaking decisions or treat climate change like an exceptional legal problem. Instead, they adapt existing legal frameworks to make them workable for climate-related issues. We argue that this normalization or routinization of climate adjudication broadens its reach and impact and is less prone to backlash and vulnerabilities than more spectacular cases, and, as a result, their potential should be further studied and tested.

4.2 CLIMATE LITIGATION: A TYPOLOGY

According to the chaos theory metaphor, the minuscule motion of a butterfly's wings can trigger a tornado half a world away. The term "butterfly effect" stems from Edward Lorenz's meteorological studies in the 1960s, which found that the details of a tornado, such as its exact time of formation and trajectory, was influenced by minor changes in the climate system several weeks earlier. Lorenz saw the effect when observing runs of his weather model, noticing that a small change in the initial weather conditions created a significantly

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different outcome.[1] Analogously, Catharine MacKinnon, in her book *Butterfly Politics*, argues that seemingly insignificant actions, through collective recursion, can intervene in unstable systems to produce systemic change and that the right, seemingly minor interventions in the legal realm can have a butterfly effect that generates major social and cultural transformations.[2]

In a similar way, we argue that the bottom-up climate change regime created by the Paris Agreement[3] has a potential to generate "butterfly climate adjudication" by injecting climate relevant reasoning into courts' routine decisions. Simple adaptations of domestic legal frameworks and cross-application of precedents within and across countries could affect the global atmosphere, one legal case at a time, by triggering aggregate effects.

The growing body of literature analyzing climate change litigation and its effects on climate governance provides insights into its potentials, problems, and limitations, including how interest groups use climate litigation strategically and its effects on regulatory responses and individual and corporate behavior.[4] But few studies have concentrated on assessing developments in

[1] See Edward N. Lorenz, "Deterministic Nonperiodic Flow" (1963) 20 *Journal of the Atmospheric Sciences* 130; see also Edward N. Lorenz, "The Predictability of Hydrodynamic Flow" (1963) 25 *Transactions of the New York Academy of Sciences* 409.

[2] See Catherine A. MacKinnon, *Butterfly Politics* (Cambridge, MA: Harvard University Press, 2017).

[3] See Paris Agreement to the United Nations Framework Convention on Climate Change, Paris, December 12, 2015, TIAS No. 16-1104.

[4] See, e.g., Jacqueline Peel, "Issues in Climate Change Litigation" (2011) 5 *Carbon & Climate Law Review* 15; see also Hari M. Osofsky, "The Geography of Climate Change Litigation: Implications for Transnational Regulatory Governance" (2005) 83 *Washington University Law Quarterly* 1789; see also Hari M. Osofsky, "Local Approaches to Transnational Corporate Responsibility: Mapping the Role of Subnational Climate Change Litigation" (2007) 20 *Global Business & Development Law Journal* 143; see also Hari M. Osofsky, "Is Climate Change 'International'? Litigation's Diagonal Regulatory Role" (2009) 49 *Virginia Journal of International Law* 2008; see also Hari M. Osofsky, "The Continuing Importance of Climate Change Litigation" (2010) 1 *Climate Law* 3; see also Hari M. Osofsky, "The Geography of Solving Global Environmental Problems: Reflections on Polycentric Efforts to Address Climate Change" (2013) 58 *New York Law School Law Review* 777; see also Jacqueline Peel and Hari M. Osofsky, "Litigation's Regulatory Pathways and the Administrative State: Lessons from U.S. and Australian Climate Change Governance" (2013) 25 *Georgetown International Environmental Law Review* 207; see also Jacqueline Peel and Hari M. Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy* (Cambridge: Cambridge University Press, 2015); see also Brian J. Preston, "The Role of Courts in Relation to Adaptation to Climate Change" in Tim Bonyhady et al. (eds.), *Adaptation to Climate Change: Law and Policy* (Alexandria: The Federation Press, 2010); see also Brian Preston, "Climate Change Litigation (Part 1)" (2011) 5 *Carbon & Climate Law Review* 3; see also Brian Preston, "Climate Change Litigation (Part 2)" (2011) 5 *Carbon & Climate Law Review* 244; see also Brian Preston, "The Contribution of the Courts in Tackling Climate Change" (2016) 28 *Journal of Environmental Law* 11; see also David Markell and J. B. Ruhl, "An Empirical Assessment of

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the case law itself, which is explored in this chapter, with a focus on low-profile climate litigation against governments before domestic courts.

Climate cases are diverse. They differ with regard to actors, interests, claims, bodies of law used to support the claims, and the types of court involved. We distinguish five main types: (i) civil law (tort) cases, seeking compensation from fossil-fuel corporations for climate-related damages; (ii) criminal law cases against companies; (iii) administrative law cases, seeking regulation and accountability for climate change mitigation or adaptation; (iv) constitutional law claims brought before domestic courts, and (v) public international law cases, typically demanding protection for communities most vulnerable to climate-related harms.[5]

In civil law cases, plaintiffs use nuisance or negligence doctrines to claim that emitters of greenhouse gases are required to repair harms caused by their emissions. Petitioners direct these claims mainly toward fossil fuel corporations. Petitions include requests for compensation for harms to the environment and court orders for corporations to reduce emissions. Paradigmatic cases include *Kivalina* v. *Exxon et al.*,[6] which focused on the climate-related

Climate Change in the Courts: A New Jurisprudence Or Business As Usual?" (2012) 64 *Florida Law Review* 15; see also Roger Cox, *Revolution Justified* (Masstricht: Planet Prosperity Foundation, 2012); see also Roger Cox, "The Liability of European States for Climate Change" (2014) 9 *Journal of Planning and Environment Law* 961; see also Roger Cox, "A Climate Change Litigation Precedent: *Urgenda Foundation v the State of the Netherlands*" (2015) *Center for International Governance Innovation* no. 79, <https://www.cigionline.org/sites/default/files/cigi_paper_79.pdf>; see also Meredith Wilensky, "Climate Change in the Courts: An Assessment of Non-U.S. Climate Litigation" (2015) 26 *Duke Environmental Law & Policy Forum* 131; see also Jolene Lin, "Climate Change and the Courts" (2012) 32 *Legal Studies* 35; see also Joana Setzer and Lisa Benjamin, "Climate Litigation in the Global South: Constraints and Innovations" (2019) 9 *Transnational Environmental Law* 77; see also Jacqueline Peel and Jolene Lin, "Transnational Climate Litigation: The Contribution of the Global South" (2019) 113 *American Journal of International Law* 679; see also César Rodríguez-Garavito, "Human Rights: The Global South's Route to Climate Litigation" (2020) 114 *AJIL Unbound* 40; see also Nicole Rogers, "Climate Change Litigation and the Awfulness of Lawfulness" (2013) 38 *Alternative Law Journal* 20; see also Kim Bouwer, "The Unsexy Future of Climate Change Litigation" (2018) 30 *Journal of Environmental Law* 483. <https://doi.org/10.1093/jel/eqy017>; see also David Estrin, "Limiting Dangerous Climate Change: The Critical Role of Citizen Suits and Domestic Courts Despite the Paris Agreement" (2016) Center for International Governance Innovation, no. 101, <https://www.cigionline.org/sites/default/files/paper_no.101.pdf>.

[5] This expands on the typology developed in Vallejo and Gloppen. See Catalina Vallejo and Siri Gloppen, "Red-Green Lawfare? Climate Change Narratives in Courtrooms," in Jackie Dugard et al. (eds.), *Climate Talk: Tights, Poverty and Justice* (Capetown: Juta Law, 2013). For other typologies, see Navraj Singh Ghaleigh, "'Six Honest Serving-Men': Climate Change Litigation as Legal Mobilization and the Utility of Typologies" (2010) 1 *Climate Law* 31; and Markell and Ruhl, "An Empirical Assessment of Climate Change in the Courts", above note 4.

[6] See 663 F. Supp. 2d 863 (N.D. Cal. 2008).

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displacement of the Alaska Native village of Kivalina, and *Comer* v. *Murphy Oil*,[7] brought by landowners in the United States (Mississippi) claiming that oil and coal companies' emissions contributed to climate change, which in turn caused the sea-level rise that added to the intensity of Hurricane Katrina. Tort cases have been dismissed for posing non-judiciable, political questions and for difficulties linking alleged harms to particular corporations' emissions. New data tracking methods for the anthropogenic emissions of specific producers could yield different results.[8] For more on these emission attribution methods, see Richard Heede's chapter in this volume (Chapter 12). For more on climate litigation against major fossil fuel corporations, see Joana Setzer's chapter in this volume (Chapter 10).

In criminal and corporate liability law cases, American citizens and state attorneys have filed claims of fraud and conspiracy against fossil fuel companies for creating a false scientific debate about climate change to mislead public opinion and investors.[9] Just as tobacco companies were accused of hiding documents proving that tobacco is harmful, fossil fuel and energy companies are being accused of conspiring to deny climate change despite having evidence to the contrary.[10] Charges of securities fraud are used to pressure companies to disclose to investors the risks they face as governments try to limit greenhouse gas emissions. Climate protection through criminal law potentially includes utilizing existing domestic law crimes against the environment; domestic crimes that could be created to protect elements of the climate system; and international criminal law, such as the possible penalization of "ecocide" as suggested by Polly Higgins et al.[11] or "postericide" as suggested by Catriona McKinnon.[12]

In administrative law cases, plaintiffs claim that governments are obliged to take – or not take – actions to mitigate or adapt to climate change according to domestic and/or international commitments. In Section 4.3, we zoom in on these cases, based on our previous study[13] and expand it to include

[7] See 585 F.3d 855 (5th Cir. 2009).

[8] See Justin Gundlach, "Can Fossil Fuel Companies Be Held Liable for Climate Change?," Climate Law Blog: Sabin Center for Climate Change Law October 25, 2017.

[9] See Nicholas Kusnetz, "Exxon's Climate Fraud Trial Opens to a Packed New York Courtroom," Inside Climate News, October 23, 2019.

[10] See Richard Frank, "Kivalina and the Courts: Justice for America's First Climate Refugees?," UCLA Law-Legal Planet, November 28, 2011.

[11] See Polly Higgins et al., "Protecting the Planet: A Proposal for a Law of Ecocide" (2013) 59 *Crime, Law and Social Change* 251.

[12] See Catriona McKinnon, "Endangering Humanity: An International Crime?" (2017) 47 *Canadian Journal of Philosophy* 395.

[13] See Vallejo and Gloppen, "Red-Green Lawfare?," above note 5.

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constitutional law claims being brought in various countries, where citizens seek to hold their governments accountable for constitutional rights violations stemming from inadequate climate regulations in areas such as forest conservation and the licensing of carbon-intensive projects.[14]

The last category is public international law cases. Petitions are filed before international courts and treaty bodies regarding the adverse effects of climate change on, for example, Indigenous peoples; communities with limited adaptation capacity, like the inhabitants of small island states or those who are especially vulnerable to the effects of climate change due to poverty or geographical location; and sites considered part of the world's heritage. The dominant argument is that governments and corporations most responsible for global emissions have an obligation to shift to more sustainable practices and to assist communities in other countries suffering climate-related harms of no fault of their own, particularly those lacking the means to adapt. So far, no international court or treaty body has ruled in favor of communities claiming special vulnerability to climate change.

Climate litigation thus incorporates diverse and innovative ways of building legal arguments to protect the global climate system. "Bold" climate change decisions, creating extraordinary new precedent and establishing groundbreaking statutory or constitutional case law, are of great importance but often are difficult and risky for individual judges to make and for tribunals to agree upon – and are more likely to be overturned by higher courts.[15] The more novel the judicial interpretation or case law, the greater the risk of legislative backlash. Implementation of rulings is also more difficult when the gap

[14] Examples of high-profile constitutional cases include *Future Generations* v. *Ministry of the Environment and Others*, where youth plaintiffs in Colombia sued several national and local government bodies and corporations to enforce their rights to a healthy environment, life, health, food, and water. The case was decided in favor of the plaintiffs. See "Future Generations v. Ministry of the Environment and Others," Sabin Center for Climate Change Law. In Norway, Greenpeace Nordic and Nature and Youth Norway sued the Norwegian Ministry of Petroleum and Energy in 2016 for violating the Norwegian constitution by issuing a block of oil and gas licenses for deep-sea extraction in the arctic Barents Sea. The plaintiffs claimed that the licenses were inconsistent with the prevention of a global temperature rise of less than two degrees Celsius. The petition sought a declaration of the state's violation of the right to a healthy environment (including a stable climate) for present and future generations enshrined in the Norwegian Constitution Article 112. The case was decided in favor of the defendants in the first and second instance and by the Norwegian Supreme Court. See "Greenpeace Nordic Ass'n v. Ministry of Petroleum and Energy," Sabin Center for Climate Change Law.

[15] See Peel and Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy*, above note 4.

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between the decision and the status quo is large.[16] These risks are particularly high when dealing with complex and politicized climate policy issues and are a reason why climate litigation should not only aim for exceptional rulings. Notwithstanding the importance of climate cases based in private law, criminal law, constitutional law, and international law, we nonetheless zoom in on administrative law claims as a strategy to build legal capacity to protect the climate system. These discrete and rather unspectacular cases get less media and scholarly attention but have achieved more favorable rulings. In Section 4.3, we explore the potential of existing case law to trigger a "butterfly effect" in climate adjudication. Section 4.4 discusses possible ways of unfolding that potential, as well as some vulnerabilities.

4.3 ADMINISTRATIVE LITIGATION IN SEARCH OF A BUTTERFLY EFFECT

Scholars have argued that climate change cases often fail because they are solved as ordinary environmental cases with no distinctive climate jurisprudence developed to address the unique characteristics of climate change.[17] In our former study, we found this critique to be valid with regard to tort law cases against the fossil fuel industry, while cases against governments display limited, but meaningful, jurisprudential developments that serve to unblock climate governance and improve consideration of climate impacts in project planning and public financing decisions.[18] Hence, the importance of climate adjudication does not (only) depend on the development of distinctive climate jurisprudence.

When exploring climate cases within the administrative and constitutional law categories, we have found that most cases against governments have been decided in favor of climate protection. This does not necessarily mean that extractive projects are halted or that global emissions of greenhouse gases decrease, but it indicates a significant role for adjudication in bringing climate concerns to bear on planning and risk assessment procedures.[19]

Existing case law is concentrated in the United States and Australia, followed by New Zealand and the United Kingdom. Most cases challenge

[16] See Gerald Rosenberg, "Courting Disaster: Looking for Change in All the Wrong Places" (2005) 54 *Drake Law Review* 795.

[17] See Wilensky, "Climate Change in the Courts," above note 4; see also Markell and Ruhl, "An Empirical Assessment of Climate Change in the Courts," above note 4.

[18] See Vallejo and Gloppen, "Red-Green Lawfare?," above note 5.

[19] Peel and Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy*, above note 4.

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licenses granted by local planning authorities for extractive and carbon-intensive projects, like coal mines and coal power plants that are central to the economy of these countries. Licenses are challenged for not sufficiently considering global atmospheric harms in environmental impact assessments (EIAs). There has also been successful climate litigation challenging extractive projects in Global South countries like Colombia and South Africa.[20] Although petroleum is at the core of the climate change problem, few cases have challenged governments over oil extraction permits or related harms and all have been decided against the plaintiffs.[21] Cases challenging permits for renewable energy projects – often citing other negative environmental impacts, like noise, damage to landscapes, or harms to birds and other wildlife – present mixed outcomes from a climate perspective. Litigation aiming to unblock the administrative inertia impeding the implementation of climate policies has succeeded in India and Pakistan and in Europe in the famous *Urgenda* case, which cited international law and human rights law in

[20] In Decision C-035/16, the Constitutional Court of Colombia struck down provisions of Law 1450 of 2011 and of Law 1753 of 2015 regarding mining permits in paramo ecosystems. The court noted the lack of regulatory protection, as well as the fragility of paramos, their role in providing around 70 percent of Colombia's drinking water, and their capacity to capture CO_2 from the atmosphere, which is ten times greater than that of a comparably sized tropical rainforest. See "Decision C-035/16 of February 8, 2016," Sabin Center for Climate Change Law. In the South African case *EarthLife Africa Johannesburg* v. *Minister of Environmental Affairs and others*, based on the principles of sustainable development, the court argued that in the EIA of a coal mine, emissions from the extracted and exported coal (Scope 3 or indirect emissions) are relevant. Absence of indirect emissions in the EIA nullifies the license granted. See "EarthLife Africa Johannesburg v. Minister of Environmental Affairs and Others," Sabin Center for Climate Change Law. Recent South African cases use similar arguments.

[21] In addition to the aforementioned Norwegian case, in *Gbemre* v. *Shell Nigeria et al.* (FHC/B/CS/53/05), the Nigerian government and Shell were sued for rights violations against the Iwherekan community resulting from gas flaring in oil extraction sites operated by Shell Petroleum. The Nigerian Federal Court ruled that oil companies must stop flaring gas in the Niger Delta and argued that the practice of gas flaring violated the fundamental rights to life and dignity provided in the Constitution of Nigeria and the African Charter on Human and Peoples Rights. The case very briefly mentioned how gas flaring also generates large amounts of CO_2, which contributes to climate change. The decision did not deliberate upon the effects of gas flaring on climate change. In the Canadian case *Pembina Institute for Appropriate Development, et al.* v. *Attorney General of Canada and Imperial Oil* ([2008] FC 302), non-profit organizations challenged a federal government panel's approval of the oil sands mine connected to the Kearl Tar Sands Project. The Federal Court of Canada found legal errors in the environmental assessment, on the basis that it had failed to seriously consider the climate change impacts of the project. See "Pembina Institute for Appropriate Development and Others v. Attorney General of Canada and Imperial Oil," Sabin Center for Climate Change Law.

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a tort-based claim to force the Dutch government to create stronger mitigation targets – triggering a wave of human rights–based mitigation claims.[22]

Administrative climate litigation impacts climate governance in the United States and Australia through the National Environmental Policy Act (NEPA) and land use planning litigation, respectively.[23] The first administrative case in Australia was brought to court in 1994 by Greenpeace.[24] Still using the language of "global warming," it challenged a state council decision to grant development consent to a coal power station, claiming it would harm the global atmosphere and impact the climate system. Greenpeace alleged that the energy to be produced by the plant was not needed for domestic consumption, and thus its atmospheric harms were not justifiable. The case was dismissed. The alleged harms were considered speculative, and economic development and jobs were the priority.

Two decades later, NGOs in Austria and the United Kingdom challenged permits granted for the expansion of the Vienna and Stansted (London) airports based on their projected contributions to greenhouse gas emissions.[25] These cases were also dismissed. Despite acknowledging international emissions reduction commitments, economic growth and jobs were prioritized. In contrast, in February 2020, a similar case concerning the expansion of London's Heathrow Airport[26] was decided in favor of the petitioners, by the UK Court of Appeal, based on the United Kingdom's pledges pursuant to the Paris Agreement. The ruling was, however, overturned by the Supreme Court on December 16, 2020, on the grounds, among others, that the formal ratification of the Paris Agreement did not mean that it (yet) constituted "government policy."[27] Plan B Earth announced that it will appeal the judgment to the European Court of Human Rights.[28]

[22] On the wave of human rights–based cases see, e.g., Peel and Lin, "Transnational Climate Litigation: The Contribution of the Global South," above note 4; see also Rodríguez-Garavito, "Human Rights: The Global South's Route to Climate Litigation," above note 4; see also Annalisa Savaresi and Juan Auz, "Climate Change Litigation and Human Rights: Pushing the Boundaries" (2019) 9 *Climate Law* 244.

[23] See Peel and Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy*, above note 4.

[24] See "Greenpeace Australia Ltd v. Redbank Power Co.," Sabin Center for Climate Change Law.

[25] See "In re Vienna-Schwechat Airport Expansion," Sabin Center for Climate Change Law; see also "Barbone and Ross (on behalf of Stop Stansted Expansion) v. Secretary of State for Transport," Sabin Center for Climate Change Law.

[26] See "Plan B Earth and Others v. Secretary of State for Transport," Sabin Center for Climate Change Law.

[27] See *R (on the application of Friends of the Earth Ltd and others) (Respondents)* v. *Heathrow Airport Ltd (Appellant)* [2020] UKSC 52.

[28] See Mark Clarke and Gwen Wackwitz, "Supreme Court overturns block on Heathrow's expansion", White & Case, January 25, 2021.

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When asked to align environmental and economic considerations in decisions concerning extraction and development projects, the jurisprudence tends to favor economic considerations without rigorous examination of the principles of sustainable development, norms that are part of the global regulatory regime on climate change, or relevant soft law such as the Oslo Principles on Global Climate Change (2015).[29] The jurisprudence on sustainable development and the application of the precautionary principle still need more elaboration in order to effectively influence decision-making in the administrative state.

The potential of routine climate cases could be enhanced through the inclusion in more countries of climate arguments in relevant administrative litigation, such as project licensing, and by exploiting synergies with more traditional environmental litigation, such as that on local air pollution. Routine administrative law cases are important to triggering a butterfly effect on climate change. They do not rely only on visionary and brave judges and, importantly, can integrate climate change concerns into the everyday fabric of the law and ordinary legal education.

A key challenge has been the portrayal of climate change as an abstract and intangible problem, located in distant lands and the far future. This is changing, though, as the scientific and legal capacity to understand and attribute responsibility have developed. In many administrative court cases, climate change is now discussed as a matter of the here and now, with precise claims regarding what the government should do – including how projects' estimated greenhouse gas emissions should be counted and considered in the impact assessments that inform licensing.

The overall aim of court cases filed against governments is to make governments' international declarations and domestic constitutional and legal commitments matter in everyday climate-relevant administrative decisions – including land use, development policy, urban planning, and incentives for the energy sector (renewable and non-renewable). Table 4.1 distinguishes some currents or themes key to the climate change debate within administrative law cases, which build traction and legal capacity for climate protection within the administrative state by transforming climate change from abstract

[29] One exception is *Bulga Milbrodale Progress Association Inc.* v. *Minister for Planning and Infrastructure and Warkworth Mining Limited*, [2013] NSWLEC 48 (Australia), concerning a mining project that would expand a coal mine into designated "non-disturbance areas" and extend the mining permit for ten years. The court overturned the approval due, among other reasons, to reduced biodiversity. In assessing biodiversity concerns, the court considered vulnerability to climate change. See "Bulga Milbrodale Progress Association Inc. v. Minister for Planning and Infrastructure and Warkworth Mining Limited," Sabin Center for Climate Change Law.

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TABLE 4.1 *Climate currents in administrative litigation*

Administrative law climate litigation currents	Cases
Role of states in protecting forests and carbon capture ecosystems	• *Decision C-035/16* (Colombia) • *In re Court on its own motion* v. *state of Himachal Pradesh and others* (India)
Decarbonizing transport	• *Barbone and Ross (on behalf of Stop Stansted Expansion)* v. *Secretary of State for Transport* (UK) • *In re Vienna-Schwechat Airport Expansion* (Austria) • *Clean Train Coalition Inc*. v. *Metrolinx* (Canada) • *Plan B Earth and Others* v. *Secretary of State for Transport* (UK)
Adequacy of national emission reduction targets	• *Urgenda Foundation* v. *Kingdom of the Netherlands* • *Environment-People-Law* v. *Ministry of Environmental Protection* (Ukraine)
Fairness of market incentives for the renewable energy industry	• *Phosphate Resources Ltd* v. *The Commonwealth* (Australia) • *Syncrude Canada Ltd*. v. *Attorney General* (Canada) • *Motor Vehicle Industry Association Incorporated* v. *Minister of Transport* (New Zealand)
Licensing of renewable energy projects	• *Pugh* v. *Secretary of State for Communities and Local Government* (England) • *North Cote Farms Ltd* v. *Secretary of State for Communities and Local Government* (England) • *in the Matter of an Application by Brian Quinn and Michael Quinn* (Northern Ireland) • *Meridian Energy Ltd*. v. *Wellington City Council* (New Zealand) • *Lark Energy Ltd* v. *Secretary of State for Communities* (UK)
Licensing of new fossil fuel extraction projects	• *EarthLife Africa Johannesburg* v. *Minister of Environmental Affairs and Others* (South Africa)

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Administrative law climate litigation currents	Cases
	• *West Coast ENT Inc.* v. *Buller Coal Ltd* (New Zealand) • *Greenpeace New Zealand* v. *Northland Regional Council* • *Peter Gray & Naomi Hodgson* v. *Macquarie Generation* (Australia) • *Xstrata Coal Queensland Pty Ltd and Others* v. *Friends of the Earth – Brisbane and Others* (Australia) • *Greenpeace Australia Ltd* v. *Redbank Power Co.* (Australia)
Protection of water resources for climate resilience	• *Alanvale Pty Ltd* v. *Southern Rural Water Authority* (Australia) • *Paul* v. *Goulburn Murray Water Corporation and Others* (Australia) • *David Kettle Consulting* v. *Gosford City Council* (Australia) • *Decision C-035/16* (Colombia)
Publicity of information on fossil fuel investment	• *German Federation for Environment and Conservation (BMUB)* v. *Minister for Commerce and Labor on behalf of Federal Republic of Germany*
States' role in providing climate-related refugee protection	• *Ioane Teitiota* v. *the Chief Executive of the Ministry of Business, Innovation and Employment* (New Zealand)

and complex discourse to issues suitable for adjudication. Some cases reflecting each current are also listed. Some are high-profile cases, while others are routine cases that could set off a butterfly effect.

Climate-related litigation often involves administrative due process claims. At their core, these court cases discuss the duty of governments to take precautionary measures to avoid the excessive accumulation of greenhouse gases in the atmosphere and to protect citizens from the negative impacts of those already accumulated.

We suggest that by accommodating existing legal norms and doctrine to make them workable for climate change, some courts have managed to create important precedents from which an "unspectacular" but distinct climate jurisprudence is evolving. The courts seem receptive to the argument that discrete, local, bottom-up solutions are important, so taking incremental steps

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is appropriate.[30] That the jurisprudence is diverse, uneven, and produced in different legal systems is no reason to overlook its contributions to tackling the collective action problem that is climate change.

By settling the debate on the validity of climate science in public decision-making, courts have managed to establish climate change as a collective action problem that requires regulatory interventions. A number of courts have contributed important precedents to the evolving climate jurisprudence that could be used by other courts confronted with similar cases and inserted into routine administrative adjudication. Some of these precedents are presented in Table 4.2.

In some high-profile cases, judges also go for traditional legal doctrines rather than new or precedent-breaking ones. Although *Massachusetts* v. *EPA* and *Urgenda* v. *the Netherlands* are "spectacular" cases, they were decided in favor of climate protection with a modest adaptation of existing legal notions. In *Massachusetts* v. *EPA*, the notion of "air pollutant" in US law was extended to encompass global atmospheric pollution. In *Urgenda*, the "duty of care" was extended to include governmental responsibility for adequate climate mitigation policy. *Future Generations* v. *Colombia* used existing human rights duties to adjudicate governmental responsibility for adequate mitigation policy. It became "spectacular jurisprudence" with the unsolicited declaration of the legal personhood of the Colombian Amazon. Yet the rights of nature had already been recognized in Colombia and elsewhere.

In sum, we suggest that the most radical contribution of courts to climate governance has been making policy challenges tangible and routine in nature. If cited and used across countries, unspectacular precedents have the potential to infuse broad areas of law and intervene in unstable climate governance systems in ways that – hopefully – positively affect the global atmosphere. Litigants should aim for butterfly judgments, seeking to incrementally improve the global climate system. But as with the butterfly effect for meteorological predictions, it will be impossible for future analysts to trace atmospheric changes to any particular court case.

Although the developments discussed here are important, climate jurisprudence still has a long way to go, not least with respect to the design of remedies and implementation-monitoring mechanisms and the expansion of arguments regarding sustainable development and the precautionary principle.

[30] See Peel and Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy*, above note 4.

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TABLE 4.2 *Important precedents in administrative and constitutional climate cases*

Precedent	Court and Case
Greenhouse gases are air pollutants and thus subject to state regulation Climate change risks are a mandatory consideration in EIAs of new carbon-intensive projects	• US Supreme Court in *Massachusetts* v. *EPA* • Several US courts in NEPA litigation • Several Australian courts in EIA litigation • High Court of South Africa in *Earthlife Africa Johannesburg* v. *Minister of Environmental Affairs and Others*; • UK Court of Appeal in *Plan B Earth and Others* v. *Secretary of State for Transport*
Climate adaptation should be a consideration in planning for new development projects	• Several Australian courts specializing in environmental and planning matters • Colombian Constitutional Court in *Decision C-035/16* • India's National Green Tribunal in *Court on its own motion* v. *state of Himachal Pradesh and others*
There is a governmental duty of care for climate change in relation to human rights	• The Hague District Court in *Urgenda Foundation* v. *Kingdom of the Netherlands*
There is a governmental obligation to mitigate climate change (halt deforestation) in order to protect human rights and the rights of nature	• Supreme Court of Justice of Colombia in *Future Generations* v. *Colombia*
State incentives for renewable energy projects are a legitimate policy objective	• Federal Court of Australia in *Phosphate Resources Ltd.* v. *the Commonwealth* • Canadian Federal Court of Appeal in *Syncrude Canada Ltd.* v. *Attorney General of Canada*

4.4 CONCLUDING REFLECTIONS: POTENTIAL, VULNERABILITIES, AND WAYS FORWARD

Since the early 1990s, when the first climate claims were brought to court, jurisprudence has developed, ranging from the rejection of climate claims for

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being too speculative to the use of reports from the Intergovernmental Panel on Climate Change (IPCC) as solid legal proof.[31] This jurisprudence has nudged governments into making better-informed decisions on a variety of issues, including fuel efficiency standards, greenhouse gas emissions from coal power plants, the licensing of new extractive projects, airport expansions, housing projects along coastlines affected by sea level rise, the use of water sources for industrial processes when climate resilience is at stake, and market incentives for renewable energy projects.

By settling the debate on climate science and confirming that all mitigation contributions matter, courts have managed to bring climate change to the here and now. Courts have established climate change as a collective action problem that requires regulatory interventions and have managed to adapt existing legal frameworks to accommodate and mainstream climate change into routine decision-making processes. By doing so, they are creating legal capacity[32] within the administrative state to deal with climate risks and disproving arguments that climate change is too abstract and speculative for courts to handle.[33]

In this chapter, we have shown that important climate protection precedents have been created by courts around the world, thereby helping the administrative state to untie some knots related to the super wicked nature of climate change.[34] Judiciaries are finding ways to establish, case by case, the type of legal problem climate change is: a human rights problem, a global atmospheric pollution problem, a problem concerning the adequate assessment of the impacts of carbon-intensive projects, a sustainable development problem, a biodiversity protection problem, a problem of justice for future generations and other species, and a problem of market incentives for renewables.

[31] See Julia Olson et al., "Judges Can Save Us from Climate Change, and They've Already Started – Our Children's Trust," Our Children's Trust, July 6, 2015.

[32] See Elizabeth Fisher and Eloise Scotford, "Climate Change Adjudication: The Need to Foster Legal Capacity: An Editorial Comment" (2016) 28 *Journal of Environmental Law* 1.

[33] See Laurence H. Tribe et al., "Too Hot for Courts to Handle: Fuel Temperatures, Global Warming, and the Political Question Doctrine" (2010) Washington Legal Foundation: Critical Legal Issues Working Papers Series no. 19.

[34] See Louis J. Kotzé and Alexander R. Paterson (eds.) *The Role of the Judiciary in Environmental Governance: Comparative Perspectives* (Alphen aan den Rijn: Kluwer Law International, 2009); see also Richard J. Lazarus, "Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future" (2009) 94 *Cornell Law Review* 1153; see also Peel and Osofsky, "Litigation's Regulatory Pathways and the Administrative State: Lessons from U.S. and Australian Climate Change Governance," above note 4.

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However, experimentalist, deliberative, and dialogical modes of adjudication are still uncommon in climate jurisprudence,[35] and remedies and monitoring mechanisms are only exceptionally included or explained in climate court rulings. A normativist approach dominates, focusing on rights declarations. There are still few signs of democratic experimentalism and the participatory implementation of solutions that could foster more cooperative relationships among branches of power, which is needed to address the complexities of the climate problem.[36]

International treaties are important in unclogging climate action and understanding the domestic legal currents into which they can be channeled permits the development of long-lasting legal responses.[37] Courts' routinization of climate-relevant claims expands the existing legal frameworks that judges are most comfortable using. Thus, courts have created space within existing laws to mainstream climate change into adjudicative practice.[38] This is a desirable outcome. The more climate litigation permeates everyday law, the more traction it has in the legal system. Exploring ways of scaling up and coordinating cases to reach a butterfly effect in climate litigation across jurisdictions should thus be part of a research agenda for climate protection advocates and researchers.

[35] See Rodríguez-Garavito on Empowered Participatory Jurisprudence, a type of bounded democratic experimentalism whereby courts act as catalysts of collective and iterative processes of collective problem solving. César Rodríguez-Garavito, "Empowered Participatory Jurisprudence," in Katharine G. Young (ed.), *The Future of Economic and Social Rights* (Cambridge: Cambridge University Press, 2019), pp. 233–58. On compliance with socioeconomic rights rulings, see Malcolm Langford, "Socioeconomic Rights," in Reidar Maliks and Johan Karlsson Schaffer, *Moral and Political Conceptions of Human Rights: Implications for Theory and Practice* (Cambridge: Cambridge University Press, 2017).

[36] See Lazarus, "Super Wicked Problems and Climate Change," above note 34; see also Kelly Levin et al., "Overcoming the Tragedy of Super Wicked Problems: Constraining Our Future Selves to Ameliorate Global Climate Change" (2020) 45 *Policy Sciences* 123.

[37] See Elizabeth Fisher, Eloise Scotford, and Emily Barritt, "Why Understanding the Legally Disruptive Nature of Climate Change Matters" (2015), <https://blog.oup.com/2015/04/legally-disruptive-nature-of-climate-change/>.

[38] See Fisher and Scotford, "Climate Change Adjudication," above note 32.

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