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Foreword

Our planet continues to navigate a climate crisis. As reported in the United Nations Environment Programme's 2020 Emissions Gap Report, despite a brief dip in carbon dioxide emissions caused by the COVID-19 pandemic, the world is still heading for a temperature rise of 3°C this century. This is far beyond the Paris Agreement goals of limiting global warming to well below 2°C and pursuing 1.5°C. This would amount to an untenable future for people and planet.

However, there is hope. More and more governments are progressively committing to net-zero emissions goals by around mid-century. Businesses are accelerating efforts to transition and align their operations with the goals of the Paris Agreement. Children and youth are demanding a safe climate and are forcing positive change, helping demonstrate that climate change is at the forefront of a global environmental rights movement. And – as illustrated by this report - judiciaries around the world are increasingly playing a critical role in addressing climate change.

I am proud to introduce this report, developed with the outstanding support of the Sabin Center for Climate Change at Columbia University. The Global Climate Change Litigation Report – Status Review provides an overview of the current state of climate change litigation around the world. It updates our 2017 report on the same and finds there has been a rapid increase in climate litigation. In 2017 there were 884 climate change cases brought in 24 countries. In 2020 the number of cases has nearly doubled with at least 1,550 cases filed in 38 countries.

This growing tidal wave of climate cases is driving much needed change. The report shows how climate litigation is compelling governments and corporate actors to purse more ambitious climate change mitigation and adaptation goals. It reports on key emerging trends in these cases, including the role of fundamental human rights connected to a safe climate and cases that bring to life the right to a healthy environment we now see in the constitutions of over 100 countries. It outlines how cases are forcing greater climate disclosures and ending "corporate greenwashing" on climate change. It reports how people are holding their governments to account, seeking to keep fossil fuels in the ground and challenging non-enforcement of climate-related laws and policies.

As countries urgently seek to access and distribute much awaited COVID-19 vaccines, we are well advised to remember that the future impacts of climate change will far outstrip the devastation of the current global coronavirus pandemic. Environmental rule of law – supported and achieved in part through strong and independent judiciaries – contributes as an effective vaccine against future zoonotic diseases and pandemics. The role of judiciaries in combating climate change, therefore, cannot be overstated.

Inger Andersen

Executive Director

United Nations Environment Programme.



Executive Summary

Climate ambition in countries around the world remains inadequate to meet the challenge of climate change. As a result, individuals, communities, nongovernmental organizations (NGOs), business entities, and subnational governments have turned to the courts to seek relief through the enforcement of existing climate laws; integration of climate action into existing environmental, energy, and natural resources laws; clear definitions of fundamental climate rights and obligations; and compensation for climate harms. As these actions become more frequent in their occurrence, and more numerous overall, the body of legal precedent grows, forming an increasingly coherent field of law.

This report, which updates the 2017 document by the United Nations Environment Programme (UNEP) entitled The Status of Climate Change Litigation: A Global Review, provides an overview of the current state of climate change litigation, as well as a fresh assessment of global climate change litigation trends. It finds that a rapid increase in climate litigation has occurred around the world. The 2017 Litigation Report identified 884 cases brought in 24 countries, comprised of 654 cases in the United States of America and 230 cases in all other countries combined. As of 1 July 2020, the number of cases has nearly doubled with at least 1,550 climate change cases filed in 38 countries (39 counting the courts of the European Union). Those cases include approximately 1,200 filed in the U.S. and over 350 filed in all other countries combined.

Key trends include: ongoing and increasing numbers of cases relying on fundamental and human rights enshrined in international law and national constitutions to compel climate action; challenging domestic enforcement (and non-enforcement) of climate-related laws and policies; seeking to keep fossil fuels in the ground; claiming corporate liability and responsibility for climate harms; addressing failures to adapt and the impacts of adaptation; and advocating for greater climate disclosures and an end to corporate greenwashing on the subject

of climate change and the energy transition. Summaries of significant cases appear throughout this report, providing context and examples of those issues and the trends they comprise.

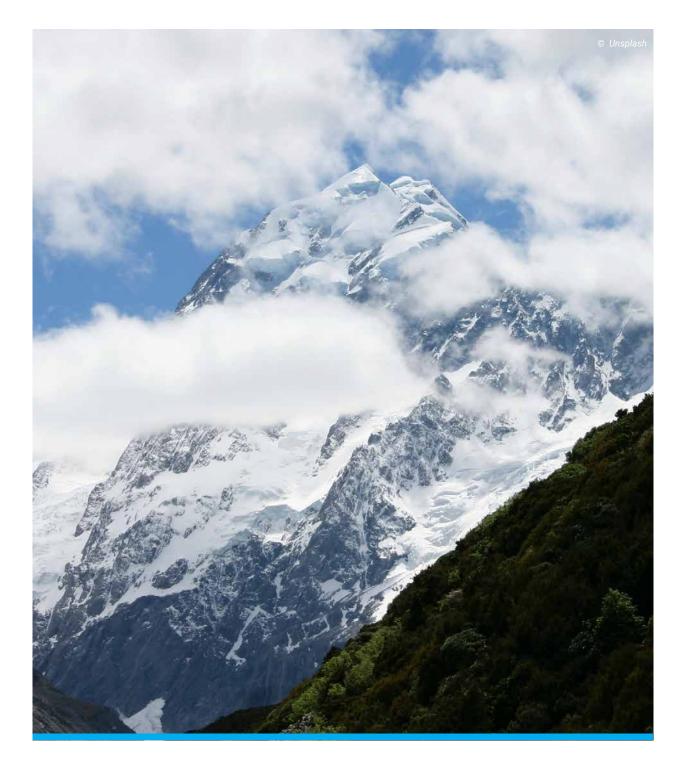
This report also describes five types of climate cases that suggest where global climate change litigation may be heading in the coming years. First, plaintiffs are increasingly filing consumer and investor fraud claims alleging that companies failed to disclose information about climate risk or have disclosed information in a misleading way. Second, recent years suggest a growing number of pre- and postdisaster cases premised on a defendant's failure to properly plan for or manage the consequences of extreme weather events. Third, as more cases are filed and some reach a conclusion, implementation of courts' orders will raise new challenges. Fourth, courts and litigants increasingly will be called on to address the law and science of climate attribution as cases seeking to assign responsibility for private actors' contributions to climate change and cases arguing for greater government action to mitigate both advance and proliferate. Finally, litigants are increasingly bringing claims before international adjudicatory bodies, which may lack for enforcement authority but whose declarations can shift and inform judicial understanding.

Although climate change cases are premised on a broad range of legal theories, and are brought before many different courts, tribunals, and other fora throughout the world, such cases often face common core legal issues. This report summarizes those issues, which include challenges to whether the court has the power to resolve the dispute, identifying the source of an enforceable climate-related right or obligation, crafting a remedy that will lessen the plaintiffs' injuries and, importantly, marshalling the science of climate attribution. As cases move through the process of litigation, parties are advancing sophisticated arguments about how to link a specific greenhouse gas emitter's actions to global climate change and how foreseeable,

climate-driven extreme weather events can be linked to specific harms suffered by plaintiffs.

In summary, the amount of climate change litigation is increasing, the range of legal theories is expanding, and it has become clear that climate cases can contribute in meaningful ways to compel governments and corporate actors to pursue more ambitious climate change mitigation and

adaptation goals. As the international community advances deeper into the third decade of the millennium—a critical decade in which nations must reverse course to dramatically reduce greenhouse gas emissions, enact reforms to achieve the United Nations Sustainable Development Goals, and also respond to and recover from the COVID-19 pandemic—climate litigation will continue to have an important role to play.



Introduction

Countries around the world have enacted laws and adopted policies that describe national and international responses to climate change. But the current levels of both climate ambition and climate action are inadequate to meet the challenge. As a consequence, individuals, communities, nongovernmental organizations, business entities, subnational governments and others have brought cases seeking to compel enforcement of those laws, replace them with stronger ones (and sometimes weaker ones), extend existing laws to address climate change, or define the relationship between fundamental rights and the impacts of climate change. In recent years, a number of those cases have produced clear judicial statements about the reality of climate change and the responsibility for it, as well as how protection of other rights may be burdened by climate change impacts. As actions seeking to fill gaps in legislative and regulatory responses to climate change continue to increase, so does the body of legal precedent recognizing the urgency of the climate crisis and the role of courts in addressing it.

In 2017, UNEP published a survey of global climate change litigation, identifying key developments, profiling significant cases, describing then-current and emerging trends, and outlining the key legal issues in climate change cases.1 The climate crisis has only deepened since then.2 This report provides a fresh assessment of global climate change litigation and analysis of trends. It also updates cases that were pending when the prior report was published. While most of the trends identified in 2017 have continued in the intervening years, and the key legal issues discussed in the prior report remain central, this report identifies new trends and emerging issues in climate litigation. Except where otherwise noted, this report contains information as of 1 July 2020.

Defining "Climate Change Litigation"

This report considers "climate change litigation" to include cases that raise material issues of law or fact relating to climate change mitigation, adaptation, or the science of climate change.³ Such cases are brought before a range of administrative, judicial, and other adjudicatory bodies. These cases are typically identified with keywords like *climate change*, *global warming*, *global change*, *greenhouse gas*, *GHGs*, and *sea level rise*, but where cases actually raise issues of law or fact related to climate change but do not use those specific terms, they are included.⁴

This report excludes cases where the discussion of climate change is incidental or where a non-climate legal theory would guide the substantive outcome of the case. Thus,

when climate change keywords are only used as a passing reference to the fact of climate change and those issues are not related to the laws, policies, or actions actually at issue, the case is excluded. Similarly, this report excludes cases that seek to accomplish goals arguably related to climate change adaptation or mitigation but that do not depend on the climate change dimensions of those goals. For example, lawsuits seeking to use human health regulations to limit air pollution from coal fired power plants may incidentally cause a court to compel that power plant to emit fewer greenhouse gases (GHGs). Such cases are not considered "climate change litigation" for the purposes of this study.5

This report proceeds in three parts. Part 1 sets the stage by describing the growing urgency of the climate crisis and the role that climate change litigation plays. Part 2 describes the current state of global climate change litigation and assesses current and emerging trends. Those trends reflect continued and increasing numbers of cases focused on one or more of the following: (1) climate rights; (2) domestic enforcement; (3) keeping fossil fuels in the ground; (4) corporate liability and responsibility; (5) failure to adapt and the impacts of adaptation; and/or (6) climate disclosures and greenwashing. Part 3 summarizes core legal issues that recur in all or nearly all climate change cases.6 Those issues include challenges to whether a legal action is one for which courts are appropriate fora; what

law, regulation, or right provides the defendants' duties and obligations; what remedies are within the court's power; and the science of climate attribution in two dimensions: linking a specific greenhouse gas (GHG) emitter's actions to global climate change, and linking climate-driven extreme weather events with harms suffered by plaintiffs. Summaries of significant cases appear throughout the report, providing context and examples of those issues and the trends they comprise. The report concludes that litigation is central to efforts to compel governments and corporate actors to undertake more ambitious climate change mitigation and adaptation goals, and litigants around the world continue to expand the range of theories under which defendants are obligated to take climate-related action.



INTRODUCTION NOTES

- 1 United Nations Environment Programme, The Status of Climate Change Litigation: A Global Review (2017). Throughout this report we refer to the earlier work as the "2017 Litigation Report."
- See, e.g., Intergovernmental Panel on Climate Change, AR5 Synthesis Report: Climate Change 2014, https://www.ipcc.ch/site/assets/ uploads/2018/02/SYR_AR5_FINAL_full.pdf.
- 3 This definition also guides the collection of cases included in the Sabin Center for Climate Change Law's U.S. and Non-U.S. Climate Change Litigation charts, as well as the Climate Change Laws of the World database, maintained jointly by the Sabin Center for Climate Change Law and the Grantham Research Institute at the London School of Economics. See also David Markell & J.B. Ruhl, An Empirical Assessment of Climate Change in the Courts: A New Jurisprudence or Business as Usual?, 64 Fla. L. Rev. 15, 27 (2012) (defining climate change litigation to include "any piece of federal, state, tribal, or local administrative or judicial litigation in which the . . . tribunal decisions directly and expressly raise an issue of fact or law regarding the substance or policy of climate change causes and impacts.").
- 4 For example, in Burgess v. Minister of Natural Resources and Forestry the plaintiff cites increased precipitation causing increased frequency and severity of flooding without explicitly naming climate change. No. 16-1325 CP, Statement of Claim (Ont. Sp. Ct. Sept. 14, 2016).
- 5 Cf. Jacqueline Peel & Jolene Lin, Transnational Climate Litigation: The Contribution of the Global South 113 Am. J. Int'l L. 679 (2019). Peel and Lin note that in the Global South, in particular, cases are less likely to fit into the most commonly used definitions of climate change litigation. Id. at 690–91. They argue that analyses of climate change litigation should include matters in which climate change is a peripheral issue because those cases still "make an important contribution to climate governance," but similarly exclude matters where climate change is mentioned only incidentally. Id. at 695.
- 6 Legal systems around the world vary widely and different forms of legal actions cause these issues to arise in a variety of ways. The analysis here seeks a comparative perspective and provides an overview for legal professionals, researchers, and others.

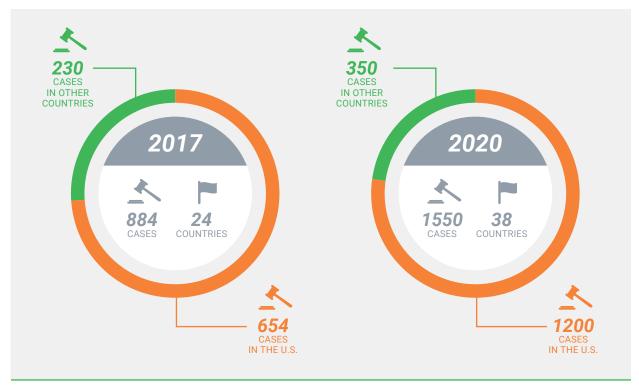


The Importance of Climate Change Litigation

Human activity has had a dramatic impact on the earth's climate. Carbondioxide (CO₂) concentrations have increased dramatically to more than double pre-industrial levels; and in just one year beginning in 2017, they increased at a faster rate than the decade prior. Those atmospheric changes have brought widespread warming that, in turn, has caused a range of other impacts including melting glaciers, vanishing snow cover, diminishing sea ice, rising sea levels, acidifying oceans, an expanding tide of displaced people, and increasingly frequent heavy precipitation, forest fires, and record-breaking temperatures.²

In light of these observed changes and the scientific consensus on the anthropogenic sources of climate change, plaintiffs and petitioners seeking to compel more ambitious climate change mitigation and adaptation on the part of governments and private parties have brought a wide range of climate change cases before tribunals throughout the world. These cases have sought to compel governments to accelerate their efforts to implement emissions reduction targets;³ demonstrate that national GHG emissions goals are insufficiently ambitious or not being pursued at all;⁴ connect harms suffered by vulnerable communities to emitters responsible

Number of cases



Note: The data is current as of 1 July 2020.

for a share of global temperature increases;⁵ bring global climate change concerns to bear on local action;⁶ and either force adaptation action or recover damages that result from others' failures to adapt.⁷

These cases are important for defendants, as well. For governments, climate cases can result in binding judicial orders that require new climate goals, more extensive climate regulations, reforms to environmental impact assessments and other procedures, and significant investments in social

and physical infrastructure. For private parties, climate cases can produce altered regulatory environments, delay or denial of proposed projects, injunctions to adapt infrastructure, or potentially massive damages awards. To date, no court has ordered a defendant to pay damages for climate harms caused by a defendant's contribution to climate change, but a number of ongoing cases seek just that. Similarly, parties sued for the environmental consequences of failing to adapt their facilities or operations may be at risk of significant liability.⁸

Climate Deregulation

It is important to note that litigation against government is not exclusively comprised of lawsuits seeking to compel government action. In both the U.S. and Brazil, plaintiffs have filed actions challenging government efforts to relax climate regulation, or "deregulate." Cases of this type ultimately seek to retain more robust climate regulation, but they shift the typical roles of subnational governments and NGOs seeking more ambition from governments reluctant to act on climate change, and of governments seeking to defend affirmative decisions to deregulate.9

In Brazil, for example, at least three lawsuits have been filed against the government challenging decisions to annul regulations on timber harvesting and seeking to reactivate funds previously set aside to pay for efforts to combat Amazon deforestation and climate change.¹⁰ In the U.S., well over 50 lawsuits have been filed challenging government decisions to lift regulations relating to the environment, energy, and natural resources.¹¹ In the U.S., for the most part, such plaintiffs have succeeded either by obtaining court orders halting deregulation until procedural irregularities have been corrected or by inducing relevant agencies to abandon deregulatory efforts.¹²

PART 1 NOTES

- 1 WMO Greenhouse Gas Bulletin No. 15 (25 Nov. 2019).
- 2 See Intergovernmental Panel on Climate Change [IPCC], Special Report: Global Warming of 1.5°C (Valerie Masson-Delmotte et al. eds., 2018); U.S. Global Change Research Program, Climate Science Special Report, Fourth National Climate Assessment 10–11 (2017)
- 3 See, e.g., Urgenda Foundation v. The State of The Netherlands, The Supreme Court of the Netherlands, Case No. 19/00135 (20 December 2019) (unofficial translation from the court).; Leghari v. Pakistan, (2015) W.P. No. 25501/2015 (Supplemental Decision).
- 4 See, e.g., Friends of The Irish Environment CLG v. Ireland, [2017 No. 793 JR]; Leghari v. Pakistan, (2015) W.P. No. 25501/2015 (Supplemental Decision); Family Farmers and Greenpeace Germany v. Germany, (2018) 00271/17/R /SP.
- 5 See, e.g., Lliuya v. RWE, Az. 2 O 285/15 Essen Regional Court [2015].
- 6 See, e.g., Plan B Earth et al. v. Sec'y of State, [2020] EWCA Civ 214.
- 7 See, e.g., Ralph Lauren 57 v. Byron Shire Council, [2016] NSWSC 169; Harris County v. Arkema, No. 201776961 (Harris Co. Dist. Ct. Nov. 16, 2017).
- 8 The U.S. utility Pacific Gas & Electric, discussed below in Section 2.B.6, provides a stark example: In 2019, facing billions of dollars in liability for its role in causing wildfires, the company filed for bankruptcy. Those claims were ultimately resolved by settlements valued in excess of \$25 billion. See In re: PG&E Corporation, No. 19-30088, Order Confirming Debtors' and Shareholder Proponents' Joint Chapter 11 Plan of Reorganization Dated June 19, 2020 (Bankr. N.D. Cal. June 20, 2020).
- 9 See Sections 2.B.2-3.
- 10 Instituto Socioambiental et al. v. IBAMA et al., J.F., No. ACP 1009665-60.2020.4.01.3200 06.04.2020 (Braz.); PSB et al. v. Federal Union, S.T.F., No. 0024408-68.2020.1.00.0000, Relator: Min. Roberto Barroso 12.06.2020 (Braz.); see also Sam Cowie, Brazilian government taken to court for assault on environment, climate, Mongabay (June 10, 2020), https://news.mongabay.com/2020/06/brazilian-government-taken-to-court-for-assault-on-environment-climate/.
- 11 Roundup: Trump Era Agency Policy in the Courts, Institute for Policy Integrity (July 15, 2020), https://policyintegrity.org/trump-court-roundup.

12 Id.





The State of Climate Change Litigation

This part describes and summarizes the status of climate change litigation throughout the world. It discusses key cases and how they are thematically linked to larger categories of climate cases. It identifies six important categories into which most cases can be placed and discusses trends that both run through these cases and suggest what future cases are likely to be brought.

I. Survey of Climate Change Litigation

Both the number of cases filed and the number of countries within which they have been brought have increased rapidly in recent years: the 2017 Litigation Report identified 884 cases brought in 24 countries, comprised of 654 cases in the U.S. and 230 cases in all other countries combined. As of 1 July 2020, the number of cases tracked in the Sabin Center's database nearly doubled with at least 1,550 climate change cases filed in 38 countries (39 counting the courts of the European Union).2 Those cases include approximately 1,200 filed in the U.S. and over 350 filed in all other countries combined. Outside of the U.S., Australia has seen the largest number of cases (97), followed by the United Kingdom and the European Union³ (58 and 55 respectively).4

Governments are the most frequent defendants in climate change cases. Paradigmatic cases against governments claim that broad policies or specific decisions are inconsistent with constitutional, legislative, or policy commitments to reduce GHG emissions. The specific policies and decisions in these cases include, but are not limited to, national emissions targets and government licenses, and permits or subsidies for fossil fuel production or use. *Urgenda Foundation v. State of the Netherlands* ("*Urgenda*") and *Friends of the Irish Environment CLG v. Gov't of Ireland* exemplify

one type of case: in both instances, plaintiffs have argued that national GHG policies are insufficiently aggressive to be consistent with national climate change mitigation obligations.

Cases that name private parties as defendants are premised on a wide array of different theories. Key examples include cases seeking to hold a GHG emitter or fossil fuel producer responsible for climate harms, and cases arguing that publicly traded companies ignored or misused knowledge about climate change risk.

II. Trends in Climate Change Litigation

Climate cases to date often fall into one or more of six categories: (1) climate rights; (2) domestic enforcement; (3) keeping fossil fuels in the ground; (4) corporate liability and responsibility; (5) failure to adapt and the impacts of adaptation; and (6) climate disclosures and greenwashing.⁵

A. Climate rights

Recent years have seen an increase in the number and success of actions that assert that insufficient action to mitigate climate change violates plaintiffs' international and constitutional rights to life, health, food, water, liberty, family life, and more⁶—a category of cases we refer to here as "climate rights" cases. The 2017 Litigation Report noted several key cases, including: Greenpeace Nordic Ass'n and Nature & Youth v. Ministry of Petroleum and Energy, where environmental NGOs argue that Norway's Ministry of Petroleum and Energy violated the Norwegian constitution by issuing a block of oil and gas licenses for deepsea extraction from sites in the Barents Sea;7 In re Court on its own motion v. State of Himachal Pradesh and others, where India's National Green Tribunal Principal Bench in New Delhi invoked constitutional protection of the environment and ordered authorities to undertake measures to protect against environmental harms made more likely and extreme by climate change;8 and in *Decision C-035/16 of February 8, 2016*, where the Colombian Constitutional Court struck down as unconstitutional statutory provisions that threatened high-altitude ecosystems, declaring the provisions unconstitutional for, among other violations, violating the public's right to clean water.9

A group of more recent cases in international fora have asserted and, in some cases established, that climate change impacts an expanding set of international human rights:

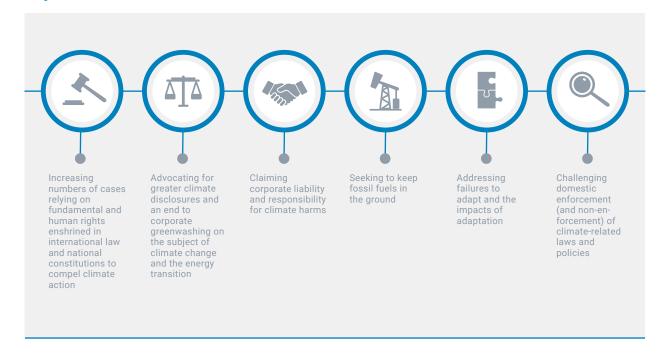
In November 2017, the Inter-American Court of Human Rights issued Advisory Opinion OC-23/17, in response to a request from Colombia, in which the court concluded that the right to a healthy environment is a human right under the American Convention on Human Rights. 10 The opinion addresses climate change throughout, acknowledging that climate change is widely understood to interfere with the enjoyment of human rights, and specifically stating, "To respect and to ensure the rights to life and to personal integrity of the persons subject to their jurisdiction, States have the obligation to

prevent significant environmental damage within or outside their territory and, to this end, must regulate, supervise and monitor activities within their jurisdiction that could produce significant environmental damage."¹¹

In May 2019, a group of eight Torres Strait Islanders submitted a petition against the Australian government to the United Nations Human Rights Committee, alleging that Australia is violating their human rights under the International Covenant on Civil and Political Rights (ICCPR) by failing to establish sufficient greenhouse gas mitigation targets and plans, and by failing to fund adequate coastal defense and resilience measures on the islands, which are at risk of inundation due to sea level rise. The petitioners allege Australia's failures violate Article 27 (the right to culture), Article 17 (the right to be free from arbitrary interference with privacy, family and home), and Article 6 (the right to life) of the ICCPR. The submitted is the submitted of the right to life) of the ICCPR.

In September 2019, 16 children filed a petition alleging that Argentina, Brazil, France, Germany, and Turkey have violated their rights under the United Nations Convention on the Rights of the Child ("the Convention") by making insufficient cuts to greenhouse gases and by failing to use their role in the G20 to encourage the world's

Key Trends



biggest emitters to curb carbon pollution.¹⁴ The petitioners claim that climate change has led to violations of their rights under the convention to life, health, the prioritization of the child's best interest, and the cultural rights of petitioners from indigenous communities.

In January 2020, five U.S. tribes in Alaska and Louisiana submitted a complaint to 10 U.N. Special Rapporteurs claiming that the U.S. government and state governments are violating the tribes' fundamental rights. ¹⁵ The tribes argue that the they are being forcibly displaced from their ancestral lands as a result of climate change, and that the U.S. government has failed to engage, consult, acknowledge, and promote the self-determination of the tribes as they develop adaptation strategies, including resettlement, in violation of the tribes' rights to, among others, life, health, housing, water, sanitation, a healthy environment, and food. ¹⁶

Cases brought in domestic fora have argued that climate obligations emerge from existing constitutional and fundamental rights secured under domestic law.

In *Urgenda*, the Supreme Court of the Netherlands ruled that Articles 2 and 8 of the European Convention on Human Rights (ECHR), as integrated into domestic Dutch law, impose enforceable obligations on the state to protect the right to life and the right to respect for private and family life. The court concluded that those obligations require the government to take steps to reduce carbon emissions consistent with limiting warming to an average of 1.5°C.¹⁷

In Future Generations v. Ministry of the Environment and Others, a group of youth plaintiffs filed a tutela alleging that their fundamental rights to a healthy environment, life, health, food, and water were threatened by climate change and the government's failure to reduce deforestation in the Amazon.¹⁸ The Supreme Court of Colombia recognized that the constitutional rights to life, health, minimum subsistence, freedom, and human dignity were substantially linked to the environment and the ecosystem and ordered the government to develop and implement a plan to halt deforestation in the country.¹⁹

In Juliana et al. v. United States ("Juliana"), the trial court had allowed the youth plaintiffs' claim that

their constitutional rights to life, liberty, and property were violated by U.S. policies allowing fossil fuel production, consumption, and combustion at "dangerous levels." The Court of Appeals reversed that decision. As discussed further below, the court held that while "[t] here is much to recommend the adoption of a comprehensive scheme to decrease fossil fuel emissions and combat climate change, both as a policy matter in general and a matter of national survival in particular," the court lacked the power "to order, design, supervise, or implement the plaintiffs' requested remedial plan." (The plaintiffs have sought rehearing of the court of appeals' decision.)

In ENVironnement JEUnesse v. Canada, an environmental nonprofit organization brought a climate change-related class action against the Canadian government on behalf of Québec citizens aged 35 and under in the Superior Court of Québec.22 Their claim alleged that by setting a greenhouse gas reduction target insufficient to avoid dangerous climate change impacts and by lacking an adequate plan to reach its greenhouse gas emission target, Canada failed to meet its obligations to protect the fundamental rights of young people under the Canadian Charter of Rights and Freedoms and the Québec Charter of Rights and Freedoms.²³ The court agreed that the impact of climate change on human rights is a justiciable issue and that the charters apply in this context, but the court dismissed the lawsuit because the proposed class of plaintiffs was based on an arbitrarily-decided cut-off of persons aged 35 and younger. The plaintiffs appealed the court's decision, and their appeal is now pending before Quebec's Court of Appeal.

In *PSB* et al. v. Brazil, four political parties filed an action alleging that the government has failed to properly administer the Amazon Fund, a mechanism created to combat deforestation in the Amazon. The parties allege that by disbanding the fund's technical committee responsible for calculating deforestation and disbanding the fund's governance body, the government has failed its constitutional duty to preserve ecological processes and to protect the natural environment. In June 2020, the Supreme Court accepted the lawsuit and directed the government to provide information on, among others, how it has managed the fund and activities related to the fund that have been implemented or suspended.²⁴

Cases brought by or on behalf of young people asserting unique harms to future generations have been filed in other jurisdictions, as well. In Kim Yujin et al. v. South Korea, 30 youth activists filed a complaint in the South Korean Constitutional Court in March 2020 alleging that the nation's climate change law violates their rights to life and to a clean environment.25 In particular, plaintiffs allege that South Korea's Framework Act on Low Carbon, Green Growth commits to reducing annual nationwide greenhouse gases at a rate that is insufficient to keep global warming below 2°C.26 Similarly, in Álvarez et al v. Peru, a group of Peruvian youth plaintiffs filed a lawsuit in December 2019 alleging that their government's failure to prevent deforestation violates their right to enjoy a healthy environment, and their rights to life, water, and health.27 Their complaint seeks an order requiring the government to implement policies to reach zero net deforestation in the Peruvian Amazon by 2025. And in Youth Verdict v. Waratah Coal, a group of plaintiffs 30 years old and younger filed an objection to Australia's approval of a new coal mine.28 The plaintiffs allege that approving the mine would violate their rights to life, the protection of children, and to culture, each of which is protected by Queensland's Human Rights Act 2019.29

Older plaintiffs have brought comparable claims as well: in *Union of Swiss Senior Women for Climate Protection v. Swiss Federal Council* a group of Swiss seniors argued that by failing to take steps to reduce global temperature increases, the government had violated their right to life.³⁰ The court rejected those claims, citing the fact that the petitioners are not the only demographic affected by climate change, so neither the injury nor remedy was particularized to the petitioners.

In Canada, indigenous groups filed a suit in the Federal Court of Canada alleging that the Canadian government's approach to climate change violates their constitutional and human rights.³¹ The plaintiffs argue that Canada's constitutional duty to legislate for "peace, order and good government" requires that it pass laws mitigating GHG emissions.³² The plaintiffs further contend that they are deprived of their right to life by increased risk of premature death; their right to liberty because climate change will deprive them of the freedom to choose where to live within their territories; and their right to

security of person because of their increased risk of injury, disease, and psychological trauma brought on by extreme weather events.³³

Cases in domestic fora also rely on fundamental and constitutional rights to challenge more particular government policies. In Pakistan, a group of women filed a petition arguing that Pakistan has not followed through on its Paris Agreement pledge to reduce GHG emissions, citing the country's failure to permit any renewable energy projects over a period of 14 months preceding the petition.³⁴ Noting the disparate impact of climate change on women in Pakistan, they argue that the government has violated their constitutional right to life, to be free of discrimination on the basis of sex, and to a clean and healthy environment.³⁵

In Austria, Greenpeace and over 8,000 individual petitioners filed an action alleging that the government's tax structure for domestic and cross-border flights makes it cheaper to fly than to take the train.³⁶ The structure, the petitioners allege, violates their rights under both the European Convention on Human Rights and the Charter of Fundamental Rights by contributing to climate change.³⁷

In Victoria Segovia v. Climate Change Commission, a group of plaintiffs-including youth plaintiffs and a class of car owners who would rather not use cars if public transportation were availablechallenged the Philippine government's failure to carve out pedestrian and bicycle space on the country's roadways.38 They argued that the government's failure violated their rights to health and a healthful ecology, as well as executive orders requiring roadways to be designed in a way that facilitates pedestrians and bicycles.39 The court denied the plaintiffs' claims, finding the plaintiffs failed to show a causal connection between the government's inaction and climate harms, and adding that that the government has discretion over how it chooses to implement the executive orders.40

Finally, some cases challenge specific projects on the basis of climate rights. In Norway, a coalition of environmental groups sought a declaratory judgment from the Oslo District Court that Norway's Ministry of Petroleum and Energy violated the Norwegian constitution by issuing a block of oil and gas licenses for deep-sea extraction from sites in the Barents Sea. Their petition argued that issuing

the licenses was inconsistent with Article 112 of the Norwegian Constitution, which establishes a "right to an environment that is conducive to health and to a natural environment whose productivity and diversity are maintained." The lower courts rejected the plaintiffs' claims, finding that the government had appropriately considered the licenses' relevant climate impacts before reaching its decision, but the plaintiffs have been granted leave to appeal to the Norwegian Supreme Court.⁴¹

As the examples above demonstrate, these cases seek to have significant impacts, ranging from orders that require a government to overhaul its climate policy to, for specific projects, orders that resolve extended and sometimes permanent delays. Given the scope of the potential remedies available where plaintiffs succeed, litigants are likely to continuing filing cases premised on fundamental and constitutional rights.

Rights of Nature and Climate Change

Since 2017, a body of cases asserting fundamental rights of nature, as opposed to persons, have been litigated in jurisdictions around the world.42 These cases are similar to those asserting human rights to the extent that they argue that the existence of certain rights necessarily implies enforceable obligations on governments, even without legislation or regulation explicitly extending those rights to climate change rights. Rivers are frequently the subject of such cases. Notably, not all of these cases explicitly relate to climate change. But if a court or legislature agrees that an object in nature possesses rights, those rights could then be the basis of a new action arguing that climate change implicates those rights.

Center for Social Justice Studies et al. v. Presidency of the Republic et al., a Colombian tutela (special constitutional claim), provides an example. Plaintiffs filed the claim seeking to compel the government to restrain the mining and logging activities that threatened the ecological integrity of the Atrato River and the health of nearby indigenous communities. In granting the plaintiffs' request, the Colombian Constitutional Court noted that "the relationship between the Constitution and the environment is dynamic and in constant evolution," and describing "nature as a real subject of rights that must be recognized by the States and exercised

under the protection of its legal representatives, such as, for example, by the communities that inhabit nature or that have a special relationship with it."43

Other jurisdictions have reached mixed results: In New Zealand, both the Whanganui river⁴⁴ and a national park called Te Urewera⁴⁵ were given personhood-type rights by legislation. In India, a pair of cases sought to establish rights relating to the Ganges and Yamuna rivers⁴⁶ and the glaciers at the source of each river. 47 The lower court granted those rights, but the decision was later overturned. In the U.S., plaintiffs filed an action seeking a declaration that the Colorado River Ecosystem is a person capable of possessing rights to exist, flourish, regenerate, be restored, and naturally evolve.48 The attorney bringing the case withdrew the action before any decision was reached however, after the government threatened to seek sanctions available where an attorney files a case for (among others) an improper purpose or to raise frivolous arguments for extending the law. Similarly, in 2019 a city government amended its charter to include a provision that "Lake Erie, and the Lake Erie watershed, possess the right to exist, flourish, and naturally evolve."49 In early 2020 a court struck down the provision as too vague to enforce.50

B. Domestic enforcement

National and subnational governments articulate commitments to climate change mitigation and

adaptation through international agreements, legislation, regulation, and policy statements. As they do, those governments and their agencies



become vulnerable to a variety of legal actions challenging either the commitments being made or how those commitments are (or are not) being put into practice. Although governments are the most common defendants in litigation challenging mitigation and adaptation commitments, analogous suits have been brought against corporations and other institutions for failing to meet their own stated climate change goals.⁵¹

Several of the cases noted in the 2017 Litigation Report⁵² have since been resolved or advanced to later stages of litigation. In Thomson v. Minister for Climate Change Issues, the court rejected plaintiff's claims that New Zealand's Paris Agreement pledge was inadequate because it fell short of what was required by New Zealand's Climate Change Response Act 2002, citing the government's discretion about how to implement the act. The court in PUSH Sweden, Nature and Youth Sweden and Others v. Government of Sweden denied plaintiffs' claims that the Swedish government's response to climate change was inconsistent with its international commitments, because the plaintiffs themselves were not injured by those policies. In Greenpeace Nordic Association v. Norway Ministry of Petroleum and Energy, discussed above, the lower and intermediate courts rejected plaintiffs' claims, but the plaintiffs have been granted leave to appeal to the Norwegian Supreme Court. VZW Klimatzaak v. Kingdom of Belgium, in which plaintiffs allege that Belgian law requires the government to adopt more ambitious climate mitigation goals than it had previously done, remains pending after a threeyear procedural dispute.53

Several more recently filed cases argue that governments have not undertaken sufficiently ambitious national climate mitigation actions in relation to existing legislative and policy commitments. For example in Friends of the Irish Environment CLG v. Gov't of Ireland, plaintiffs brought an action arguing that Ireland's National Mitigation Plan is inconsistent with the Climate Action and Low Carbon Development Act (the 2015 Act) and rights protected by the European Convention on Human Rights and the Irish Constitution.54 The lower court denied plaintiffs' claim, but in a ruling on 31 July 2020 the Supreme Court of Ireland quashed the plan.55 The court noted that the plan fell "well short of the level of specificity required to . . . comply with the provisions of the 2015 Act," and rejected the government's argument that by vacating the plan, the court ventured into policymaking, adding that "[w]hat might once have been policy has become law by virtue of the enactment of the 2015 Act."56

In Mataatua District Maori Council v. New Zealand, representatives of the Mataatua District Maori Council filed a claim alleging that New Zealand breached its obligations to the Maori by failing to implement policies to address climate change, which violates provisions of the Waitangi Treaty that make the government responsible for the "active protection" of natural resources such as forests and fisheries on behalf of the Maori. In 2019, New Zealand passed the Climate Change Response (Zero Carbon) Amendment Act 2019, setting ambitious mid-century climate mitigation targets. Plaintiffs filed an amended pleading that argues that the act still fails to adequately guard against climate change, because its targets are insufficient and unenforceable.57

Plaintiffs have also argued that the impact of government policies on natural resources demonstrates that those policies are inconsistent with their governments' legislative and policy commitments relating to climate change. In *Sheikh Asim Farooq v. Federation of Pakistan*, citizens sued Pakistan and several administrative agencies for failing to protect national forests under several legislative acts designed to protect and restore forests. The court agreed, ordering, among other things, that "the applicable laws . . . shall be implemented in letter and spirit in order to plant, protect and preserve the forest." 59

In the EU, plaintiffs from six countries filed suit against the European Union to challenge the treatment of forest biomass as a renewable fuel in the European Union's 2018 revised Renewable Energy Directive (known as RED II). They alleged that RED II will accelerate widespread forest devastation and significantly increase greenhouse gas emissions by not counting CO₂ emissions from burning wood fuels. As a result, plaintiffs contended that the policy is incompatible with the environmental objectives of the Treaty on the Functioning of the European Union and violates the EU Charter on Fundamental Rights (Art. 32 and Art. 57). In May 2020, the court dismissed the action, finding that the plaintiffs lacked standing because the directive is generally applicable, and these plaintiffs did not demonstrate any individual impacts unfelt by the public as a whole.60

Finally, plaintiffs have also argued that individual projects—as opposed to national-scale climate mitigation policies—violate governments' legislative and policy commitments even where those individual projects would not actually extract fossil fuels.

In Plan B Earth v. Sec'y of State, plaintiffs argued that the U.K.'s Airports National Policy Statement, prepared by the Secretary of State for Transport and allowing an additional runway at London's Heathrow Airport, failed to take into account the Paris Agreement, non-CO2 warming impacts of aviation, and the effects the new runway would have on climate change beyond 2050 in violation of the Planning Act and Climate Change Act. 61 Britain's Court of Appeal issued a decision halting plans to build, finding that the secretary of state's failure to consider the Paris Agreement was sufficient to invalidate the policy, adding that "the Paris Agreement was so obviously material that it had to be taken into account."62 In May 2020, the Supreme Court agreed to hear an appeal of the decision.63

In Gloucester Resources Limited v. Minister for Planning, a company brought an action against the planning minister in New South Wales to appeal the denial of the company's application to construct an open-cut coal mine.64 The Department of Planning had denied the application in light of, among other reasons, the indirect greenhouse gas emissions of the mine, and the fact that under Section 4.15(1) of the Environmental Planning and Assessment Act the government was required to consider the public interest as part of its review of a development application.65The court upheld the department's decision, concluding that because "the negative impacts of the Project, including [among others] climate change impacts, outweigh the economic and other public benefits of the Project," the project was contrary to the public interest.66

In Ecology Action et al. v. Minister of Environment and Climate Change, plaintiffs alleged that the Canadian government improperly assessed the regional consequences of exploratory drilling off the coast of Newfoundland and Labrador.⁶⁷ The plaintiffs contend that the assessment, which would allow individual projects to avoid project-specific assessments, failed to consider the impact of methane leakage on climate change.⁶⁸ The government moved to dismiss the action as not yet ready for judicial review, arguing that the regional

assessment has no inherent legal effect (although it could inform a reviewable decision later).⁶⁹ In June 2020 the court denied the government's motion, clearing the way for the case to proceed to a decision on its merits.⁷⁰

C. Keeping fossil fuels – and carbon sinks – in the ground

Courts are considering cases that challenge specific resource-dependent resource-extraction and projects and that challenge environmental permitting and review processes that plaintiffs allege overlook the projects' climate change implications. All of these cases cite both the long-term, global effect of investing in projects that will produce consumable fossil fuels and the local impacts on water, land use, and air quality associated with mining and drilling activities. Increasingly, these cases allege that proper consideration of a project's impacts should include the extent to which the project facilitates fossil fuel consumption elsewhere in the world and for an extended period into the future.

The 2017 Litigation Report described several key cases in this area: In Ali v. Federation of Pakistan, a 7-year-old girl in Karachi brought a legal action against Pakistan and the Sindh Province challenging the approval of a plan to develop certain coal fields; the action remains pending as of July 2020.71 In Greenpeace Nordic Association v. Norway Ministry of Petroleum and Energy, discussed above, plaintiffs challenged the state's decision to grant certain offshore oil and gas development licenses. And in 2016, the Colombian Constitutional Court struck down statutory provisions allowing development in high-altitude threatened ecosystems, allowing development in those would endanger carbon sinks.72

Many of the cases in this category are partially or entirely premised on environmental impact assessment (EIA) and similar planning requirements. These cases often, but not always, challenge project permitting and decisions for failing to take climate impacts into account as part of required environmental reviews. Plan B Earth, Gloucester Resources Limited, and Ecology Action, discussed in the previous section, are similarly premised on EIA requirements. But there are many other examples, and many of those challenge projects that will generate greenhouse gas emissions or destroy carbon sinks.

In Private Corporation for the Development of Aysen, et al. v. Environmental Evaluation Service of Chile, claimants challenged the Environmental Assessment Service of Chile's approval of the proposed hydroelectric project Central Hidroélectrica Cuervo in the Aysen region, arguing the project's assessment failed to consider the potential climate impacts of disturbance to wetlands as areas of high biodiversity and to forests as crucial carbon sinks.73 The court vacated the Environmental Assessment Service's approval of the project for a separate reason: the developers failed to provide sufficient compensation for disruption to wetlands and forests.74 The court also noted, however, that the assessment need only analyze local impacts and not climate change.

In Save Lamu et al. v. National Environmental Management Authority and Amu Power Co. Ltd., Kenya's National Environmental Tribunal invalidated a license granted to Amu Power Company for the construction of the Lamu Coal Power Station. The tribunal found that the license was issued without proper and meaningful public participation in the process, and it ordered the power company to conduct a new EIA that complied with all applicable regulations and that would consider Kenya's Climate Change Act 2016, Energy Act 2019, and Natural Resources (Classes of Transactions Subject to Ratification) Act, 2016.

Similar cases in the U.S. raise challenges to fossil fuel extraction leasing, frequently on the basis of EIA requirements. In one of the many examples, plaintiffs in WildEarth Guardians v. U.S. Bureau of Land Management challenged an environmental assessment addressing the sale of oil and gas leases affecting nearly 150,000 acres. The plaintiffs alleged, among other deficiencies, that the environmental assessment failed to consider the leases' cumulative climate change impacts. In May 2020 the court agreed, vacating the leases and finding that although "[t]he global nature of climate change complicates an assessment of the exact climate change impacts from the lease sales," the government must still do so to the extent necessary to allow and informed decision about whether or how to proceed with the leases.76 In WildEarth Guardians v. Zinke, the court ordered the government to revisit its environmental assessment of another set of oil and gas leases, directing the government to quantify drilling-related GHG emissions in the aggregate, discuss downstream GHG emissions in

greater detail than it had, and to further assess the cumulative effects of the leases GHG emissions.⁷⁷

Three recent cases outside the U.S. challenge decisions to construct or expand fossil fuel power plants in light of those plants' GHG emissions. In ClientEarth v. Sec'y of State, a non-profit group filed an action challenging the U.K. government's decision to approve a project converting a coal plant to natural gas. The complaint alleges the secretary misinterpreted national policy on assessing greenhouse gas emissions, failed to properly assess the carbon-capture readiness of the facility, and either ignored the U.K.'s mandate to achieve net zero greenhouse gas emissions by 2050 or, at a minimum, failed to adequately explain her assessment of the net zero target. The trial court ruled in favor of the government, finding that the secretary had appropriately assessed the project's impacts and met her requirements to explain the decision.78 But on 21 July 2020, the Court of Appeal gave ClientEarth permission to appeal. In Committee on the Kobe Coal-Fired Power Plant v. Japan, plaintiffs filed a lawsuit seeking an injunction to prevent the construction and operation of two new units at a coal-fired plant in Kobe, Japan. The plaintiffs' currently pending action asserts that the construction and operation of the new coalfired units would violate the right to clean air and a healthy and clean environment and the right to enjoy a stable climate; conflict with Japan's 2030 and 2050 climate targets; and pollute in residential areas where air quality standards are already being violated.79 In Fridays for Future Estonia v. Eesti Energia, plaintiffs brought an action challenging a new shale oil plant in Estonia. The plaintiffs argue that local authorities issued a permit to construct the new plant without adequately assessing the plant's climate impacts, Estonia's commitments under the Paris Agreement, and the European Union's climate mitigation targets.80 The lawsuit remains pending.

Although many EIA cases involve challenges to large utility and infrastructure developments, these types of provisions are used to challenge smaller-scale decisions as well. In *R* (on the application of McLennan) v. Medway Council, a claimant challenged his local planning board's decision to allow his neighbor to build a dormer that would have blocked the claimants' solar panels.⁸¹ The court ruled that the board had erred in granting the neighbor's permit without considering whether

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the proposed project would affect the neighbor's ability to generate electricity from his solar panels, reasoning that even small-scale renewable energy schemes contribute to addressing climate change.

In a more unusual fossil fuel infrastructure case, *Montana v. Washington*, two U.S. states allege that a third state, Washington, improperly blocked development of a port that would have allowed coal mined in Montana and Wyoming to be exported to foreign markets.⁸² Montana and Wyoming cite statements from Washington officials indicating that the state's opposition was premised on its concern over the overseas emissions that burning that coal would generate. The two states have petitioned the U.S. Supreme Court to hear the case.

D. Corporate liability and responsibility

Despite broad consensus about the nature, seriousness, and causes of climate change, defining the precise causal relationship between a particular source of emissions and individualized climate change harms remains a challenge for litigants.83 As the Intergovernmental Panel on Climate Change describes, the key causal mechanism of climate change is "well-mixed greenhouse gases" in the atmosphere.84 Mixing obscures particular contributions and creates challenges for litigants seeking to identify a defendant's share. The 2017 Litigation Report described several of the key cases that exemplify legal actions of this kind, noted that plaintiffs had not yet successfully established that particular emitters were the proximate cause of the plaintiff's specific injuries, and further noted leading U.S. cases in which courts did not reach the substance of the plaintiffs' claims.85 Things have changed, and not changed, since then.

In the U.S., more than a dozen cases are pending against fossil fuel producers seeking to hold them responsible for a share of climate change's impacts. Bearlier cases established precedent that plaintiffs cannot pursue common law actions under federal law; as a consequence, plaintiffs have brought claims under state laws in numerous jurisdictions. These include claims that defendant companies are liable for public nuisance due to their production and marketing of fossil fuels, and that the companies are liable for failure to warn the public and consumers about the foreseeable harms their products cause. None of the cases has yet reached a decision on the merits, and they are at various stages of litigation. Questions of

causation feature prominently in these cases, and courts are being asked to consider whether it is possible to link defendants' emissions to climate change harms sufficiently to establish jurisdiction over the cases.

In a separate proceeding that relies on the same history of fossil fuel industry obfuscation and similar approaches to attributing emissions to fossil fuel companies, *In re Greenpeace Southeast Asia*, environmental organizations and individual Filipino citizens petitioned the Philippine Commission on Human Rights to investigate "the human rights implications of climate change and ocean acidification and the resulting rights violations in the Philippines," naming 50 so-called "Carbon Majors" as respondents. In 2019 the commission, which does not have enforcement powers of its own, announced that major fossil fuel companies have obligations under domestic human rights law to address climate change impacts.⁸⁸

Other cases focus on GHG emitters, rather than fossil fuel companies. In Lliuya v. RWE AG, a Peruvian farmer sued the German utility RWE seeking compensation for the costs of protecting the plaintiff's town from melting glaciers.89 The case was initially dismissed for several reasons, including that the plaintiff had asked the court to determine RWE's precise annual contribution to global emissions rather than submitting an estimate, and that there was no "linear causal chain" linking the plaintiffs injury and RWE's emissions. 90 On appeal, however, the court reversed and has now entered into the evidentiary stage of the lawsuit, collecting evidence on, among other issues, the extent of GHG emissions released by defendant and on the way in which those emissions contribute to warming of the atmosphere.

In Smith v. Fronterra Co-Operative Group Limited, the plaintiff sued several major greenhouse-gas emitting facilities in New Zealand, alleging that their emissions amount to a public nuisance, negligence, and breached an inchoate duty to cease contributing to climate change. The court dismissed the plaintiff's nuisance and negligence claims, expressing doubt about the plaintiffs' causation argument: "[t]he defendants' collective emissions are miniscule in the context of the global greenhouse gas emissions which are causing climate change and it is the global greenhouse gas emissions which are pleaded as being likely to

cause damage "92 Although the court dismissed the first two claims, it allowed plaintiff to proceed on the theory that there may be an inchoate duty to cease contributing to climate change.

E. Failure to adapt and impacts of adaptation

Although some governments and private parties are undertaking a variety of measures to adapt to the increasingly severe effects of climate change, others are aware of those changes and the foreseeable extreme weather events that climate change will bring but have not taken steps to prepare. Courts are seeing cases challenging each—seeking compensation for adaptation efforts that caused harm or damaged property and seeking injunctive relief for failing to adapt in the face of known climate risks.

The 2017 Litigation Report described how cases in the aftermath of Hurricane Katrina in 2005 emphasize the importance of sovereign immunity for litigation in the U.S. that addresses failures to adapt.⁹³ It also described how challenges to adaptation measures, by contrast, can allege that such measures have caused unintended or unnecessary harmful side effects, describing *Ralph Lauren 57 v. Byron Shire Council* as an example. Finally, the 2017 Litigation Report discussed *Conservation Law Foundation v. ExxonMobil*, in which plaintiffs filed a suit alleging that Exxon violated terms of a permit allowing it to operate

a bulk storage terminal for petroleum products by failing to adapt the facility to sea level rise and increased storm risk. 94 The case has since resulted in a decision deferring to the permitting authority—in this case, the U.S. Environmental Protection Agency—to address by 2022 the issues that the plaintiff has raised. 95 A similar case is still pending in a federal court in Rhode Island. 96

Newer cases against governments have alleged that the governments ignored climate change risk. Indeed, an increasing number of cases challenge environmental impact assessments and planning and permitting decisions for built infrastructure and natural resources management on the basis that governments have failed to adequately account for climate change. For example in Burgess v. Ontario Minister of Natural Resources and Forestry, the plaintiff sued a provincial official in Canada responsible for managing the water level in several Canadian lakes, arguing that although the lakes had never seen flooding historically, three floods since 2010 occurred that damaged property around the lakes.97 The plaintiff alleged that the government owed property owners a duty to prevent now-foreseeable flooding, and breached that duty by failing to take necessary steps to prevent the floods that had already occurred.98 In 2018, Burgess voluntarily discontinued the case.99 In Philippi Horticultural Area Food & Farming Campaign v. MEC for





Local Government, Environmental Affairs and Development Planning: Western Cape, plaintiffs filed a lawsuit challenging an administrative decision allowing urban development in a designated horticultural area, alleging that the decision failed to adequately consider climate impacts on a local aquifer. The South African High Court remanded the administrative decision with instructions to, among other things, reconsider the decision's effect on existing rights related to the aquifer "in the context of climate change and water scarcity." 100

At the same time, there has also been an increase in lawsuits claiming that government steps to address that risk have harmed or will harm plaintiffs. For example, in Cangemi v. Town of East Hampton, plaintiffs filed a nuisance action against local government officials in New York State alleging that two jetties built to maintain a nearby inlet had stopped the flow of sand to their beachfront properties, causing erosion that diminished their property values. The governments ultimately prevailed, and the court noted that the jetties were reasonable despite plaintiffs' harms because the jetties are "necessary to keep the inlet open."101 In Ambuja Cement v. Rajasthan Electricity Regulatory Commission, a group of manufacturers challenged commission rules requiring them to purchase some of their power from renewable sources or pay a surcharge for failing to do so.102 The manufacturers, each of which established their own generation plants to meet their power needs, argued that they should not be subject to any renewable power purchase obligations under generally applicable energy laws, and that regulations purporting to create that obligation are inconsistent with India's Constitution, Electricity Act of 2003, and National Electricity Policy. 103 The court upheld the regulations citing, among other purposes, their "long lasting impact in protecting [the] environment."104 The decision was later upheld by the Indian Supreme Court. 105

Several such cases address government steps to address the heightened risk of coastal flooding through permitting denials. For example in *Argos Properties II, LLC v. City Council for Virginia Beach,* a developer filed a lawsuit asserting that the city unlawfully denied its application for a proposed rezoning of a 50-acre property for residential development on the grounds that the developer failed to provide a stormwater analysis that

accounted for sea level rise. The court dismissed the case, finding that the government's actions were within its legal authority. Similarly, in *Pridel Investments v. Coffs Harbour City Council* an Australian developer alleged that the city unlawfully rejected permission to build subdivision in an area made highly susceptible to flooding by climate change. The court upheld the city's permit denial, finding that the precautionary principle places the burden on the developer to demonstrate that flood risk can be appropriately managed; here, the developer failed to do so. Tos.

Cases against private parties similarly hinge on whether the defendant knew or should have known that climate change increased the risk that the defendant's actions would harm others. In Harris County v. Arkema, Inc., a local government in Texas sued a chemical manufacturer after flooding caused its facility to lose power and become unable to properly refrigerate certain chemicals stored at the facility that, in turn, led to an explosion, fires, and a massive release of toxic emissions. The county alleged that portions of the facility were built in a documented floodplain and asked for a court order directing the defendant to hire an independent disaster preparedness auditor and to comply with the auditors' recommendations. 109 Separately, in Graves et al. v. Arkema, Inc., first responders and local landowners sued the same company over the same event, alleging that the company was negligent in failing to prepare for a foreseeable storm. 110 In Von Oeyen v. Southern California Edison Co., residents of Malibu, California are seeking monetary damages from the local utility in the wake of a devastating wildfire. Plaintiffs argue that the defendants failed to maintain and operate their equipment and property appropriately in light of the known increased, climate-related risks of wildfire.111

In addition to cases challenging private parties' inaction on physical risk, courts have seen several cases seeking to hold companies or asset managers liable, alleging that those managers' failures to adapt their investment strategies caused financial harms. For example in *Lynn v. Peabody Energy Corporation*, a class of participants in Peabody Energy Corporation's employee stock option plans brought a lawsuit alleging that the plan administrator violated its duty of prudence by continuing to invest in the company's stock well after public information

made it clear that doing so was unreasonable. 112 The court dismissed the case, finding that plaintiffs failed to meet the high burden of describing an alternative investment that "a prudent fiduciary in the same circumstances would not have viewed as more likely to harm the fund than to help it."113 In Harvard Climate Justice Coalition v. President and Fellows of Harvard College, students at the famous university filed suit seeking to compel the university to divest its endowment from fossil fuel companies. The Massachusetts Appeals Court held that the students lacked standing to sue based on the purported negative impacts on academic freedom and education at the university and declined to recognize a new tort of "intentional investment in abnormally dangerous activities."114

In a case targeting corporate investment in fossil fuel infrastructure, *ClientEarth v. Enea*, an environmental organization sued a Polish utility seeking annulment of a resolution consenting to construction of a coal-fired power plant.¹¹⁵ The plaintiff argued that the investment would harm the economic interests of the company as a result of climate-related financial risks, including rising carbon prices, increased competition from cheaper renewables, and the impact of EU energy reforms on state subsidies for coal power under the capacity market. On 1 August 2019, the court found the company resolution authorizing construction of the power plant to be legally invalid, though on other grounds.

In another case targeting investment and disclosure in fossil fuel infrastructure, three identical complaints were filed with the Organization for Economic Cooperation and Development (OECD) National Contact Point in Japan by Market Forces, a project affiliated with Friends of the Earth Australia. The complaints allege that three Japanese banks are in breach of OECD guidelines both for failing to provide environmental and social impact assessments and for failing to urge project sponsors to assess and prevent or minimize GHG emissions associated with a number of coal power plants in Vietnam.¹¹⁶

F. Climate disclosures and greenwashing

As public information about the nature, causes, and impacts of climate change has become increasingly available and well understood, plaintiffs have brought actions challenging what

they allege are misleading corporate statements about climate change. These actions involve plaintiffs bringing suits claiming they relied on those statements to make financial decisions, as well as cases brought by governments enforcing securities disclosure and consumer protection laws, and NGOs challenging alleged "greenwashing" campaigns.

In several instances investors have filed suit alleging that public disclosures relating to climate risk were misleading or fraudulent, both in relation to the risk that a transition away from fossil fuels poses to their business or investment assets and the risk of physical impacts to infrastructure, operations and supply chains associated with climate change.

In *City of Birmingham Retirement and Relief System v. Tillerson*, stockholders filed a derivative suit against Exxon claiming that the company had misled stockholders about climate-related risks to its business.¹¹⁷ The plaintiffs allege both that Exxon knew but failed to disclose the "catastrophic risk that climate change presents to its business," and that the company actively engaged in a misinformation campaign to muddy its own scientists' conclusions about climate change.¹¹⁸ In *Ramirez v. Exxon Mobil*, a group of investors filed a lawsuit alleging that similar conduct violates federal securities law and seeking damages for the harms they suffered by relying on those misleading statements.¹¹⁹

On the physical risk side, in York County v. Rambo bond investors allege that the utility Pacific Gas and Electric Company (PG&E) stated in offering documents for more than \$4 billion worth of bonds that the utility had taken appropriate precautions to address climate change risks, including wildfire risks, but failed to disclose "the heightened risk caused by PG&E's own conduct and failure to comply with applicable regulations governing the maintenance of electrical lines, and the hundreds of fires that were already being ignited annually by the Company's equipment."120 In O'Donnell Commonwealth, investors allege that the Australian government failed to disclose climate change risks in term sheets and information memoranda on two classes of exchange-traded government bonds.121 The investors allege that physical and transition risks are material to investors in the bonds, and that failing to address those risks may lead global credit ratings agencies to downgrade Australia's credit rating. 122 The plaintiffs are seeking declarations that the government breached its disclosure obligations and an order directing it to properly disclose climate risks. 123

Several governments have also alleged violation of disclosure requirements, as well as consumer protection laws. In People of the State of New York v. Exxon Mobil Corporation, New York's attorney general brought a suit against Exxon alleging that the company engaged in a scheme to deceive investors by, among other things, stating one proxy cost of carbon publicly but applying another in internal guidance, applying no proxy cost at all to some its reserves, and stating that even under a 2°C warming scenario the company faced little risk. The court ruled for Exxon, concluding (among other things) that the plaintiff had not shown at trial that the statements actually misled any investor. 124 Massachusetts' attorney general brought a similar suit in Commonwealth v. Exxon Mobil Corporation. 125 That lawsuit includes a broader set of factual allegations and asserts that Exxon misled both investors and consumers in Massachusetts. Consumer protection lawsuits have been filed against Exxon and other fossil fuel companies by the attorneys general in Minnesota and Washington, D.C.¹²⁶

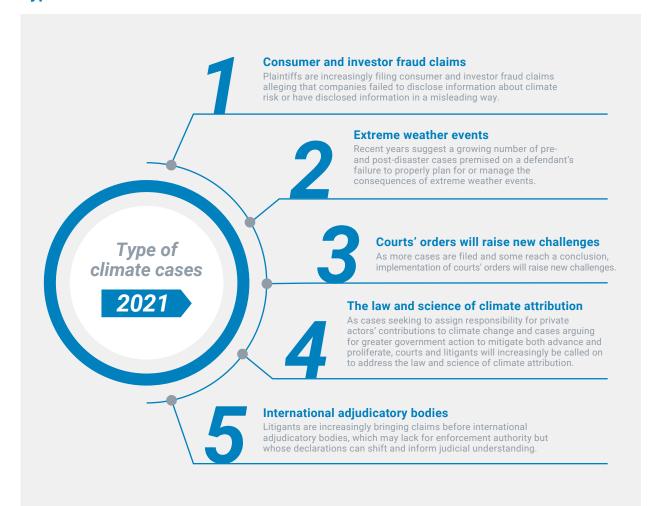
Two Australian cases highlight that failing to disclose climate information altogether, as opposed to disclosing misleading information, provides another potential basis for litigation. In McVeigh v. Retail Employees Superannuation Trust, an Australian pension fund sued the Retail Employees Superannuation Trust (REST) alleging that the fund violated the Corporations Act 2001, by inadequately responding to his request for information about the fund's knowledge of climate change risk, its assessment of that risk, and actions taken in response.127 In March 2019, the court set the maximum costs that could be recovered by either party, and the case is scheduled for trial in November 2020. 128 In Abrahams v. Commonwealth Bank of Australia, shareholders sued the Commonwealth Bank of Australia (CBA) alleging that it violated the Corporations Act of 2001 by issuing its 2016 annual report without disclosing climate change-related business risks. 129 Before the court could weigh in, the shareholders withdrew the suit after the bank issued a 2017 report acknowledging those risks.

"Greenwashing" complaints allege that corporate advertising contains false or misleading information about environmental impacts here, climate change impacts. In one case, the environmental group ClientEarth filed a complaint with the United Kingdom National Contact Point for the OECD against British Petroleum (BP), alleging that BP's "Possibilities Everywhere" advertising campaign misleads the public. 130 ClientEarth alleged that the campaign misled the public about the scale of renewable and low-carbon energy in BP's portfolio, omitted lifecycle emissions for natural gas, and claimed inaccurate emissions savings from natural gas relative to coal combustion. ClientEarth alleged that these statements violated OECD's Guidelines for Multinational Enterprises which require, among other things, that "enterprises should provide accurate, verifiable and clear information sufficient to enable consumers to make informed decisions on the environmental attributes of products and services."131 Though cases of this type may not involve the scale of penalties that securities fraud cases do, they can nonetheless have serious ramifications for a defendant's reputation. As a result of the complaint, BP has withdrawn the advertising campaign and pledged that it will discontinue "corporate reputation advertising" and redirect "resources to promote net zero policies, ideas, actions, collaborations and its own net zero ambition."132

III. Future Directions

An analysis of these and other cases, the accelerating impacts of climate change, and the global political context suggest several areas where one might expect to see increased climate change litigation in the coming years. Although each new case is unique and the outcome of a given case is difficult to predict, prior cases in some of these categories offer some evidence of how future cases may be resolved. This section first revisits similar predictions made in the 2017 Litigation Report and then suggests several additional developments the near future may hold: consumer and investor fraud claims, pre- and post-disaster cases, implementation challenges, increased attention to climate attribution, and an increasing use of international adjudicatory bodies.

Type of climate cases



Impacts of COVID-19

As numerous scholars and commentators have pointed out, the populations most threatened by climate change significantly overlap those most severely at risk due to the COVID-19 pandemic: women, older persons, youth, especially girls and young women, Indigenous peoples, migrants and internally displaced persons, and minorities and marginalised groups. Fittingly, there have been calls to address climate change impacts and pandemic impacts in synergistic ways. For example, in July 2020 the EU approved an economic recovery plan and budget that includes over

500 billion euros to combat climate change. 133 A group of mayors of major cities around the world has similarly articulated an agenda for recovery from the pandemic that would prioritize climate goals, noting that "[c]limate action can help accelerate economic recovery and enhance social equity." 134 These and comparable plans—in addition to the significant social, economic, and political ramifications of the pandemic—may eventually influence global climate change litigation. However, it is too soon to know in what ways this influence may occur or how significant it might be.

A. Update on 2017 predictions: Climate migration and litigation in the Global South

The 2017 Litigation Report suggested that cases addressing the needs and status of persons displaced by climate change impacts would be a growing litigation trend. The pair of cases we discussed in the previous report—loane Teitiota v. The Chief Executive of the Ministry of Business, Innovation and Employment and In re: AD—remain the key decisions that inform how we expect courts to address these issues, though at least 20 relevant cases have been brought in New Zealand and Australia thus far. 136

In Teitiota the Supreme Court of New Zealand denied a Kiribati citizen's refugee status, but noted that "environmental degradation resulting from climate change or other natural disasters could . . . create a pathway into the Refugee Convention or protected person jurisdiction."137 Teitiota subsequently filed a complaint before the U.N Human Rights Committee contending that by denying his refugee status, New Zealand violated his right to life under the International Covenant on Civil and Political Rights.¹³⁸ In January 2020, the committee found that "the effects of climate change in receiving states may expose individuals to a violation of their rights under [the Covenant]," but dismissed the complaint, finding that it could only overturn a state's decision if the domestic process was clearly arbitrary, amounted to a manifest error, or was a denial of justice. 139

A recently filed petition may provide some additional insight into how governments will react to comparable claims. As noted in Section 2.II.A above, in early 2020 a group of Indian tribes in the U.S. submitted a complaint to 10 U.N. Special Rapporteurs alleging that their land is becoming uninhabitable both because of slow, ongoing climate impacts like sea-level rise and because of extreme weather events made worse by climate change. The petitioners contend that by failing to engage, consult, or acknowledge the tribes, and by failing to promote adaptation strategies to ensure the tribes' continued self-determination, the government has ignored violations of their rights to life, health, housing, water, sanitation, a healthy environment, and food, among others. 140 Even if the Special Rapporteurs decide to take action on the complaint, the government may choose whether to respond to the complaint and, in any event, is not obligated to take any action. But regardless of any outcome, the petition lays out a framework for future actions seeking binding orders to address displacement caused by climate change.

It is reasonable to continue to expect cases concerning transboundary migration to increase. It is also reasonable to anticipate that an increasing number of cases will arise concerning internal displacement. Indeed, government obligations to protect people from both transboundary and internal displacement, and the rights of persons forced into mobility, may become a far more visible part of the climate litigation landscape. As climate change impacts like severe heat waves, drought, sea-level rise, and increasingly frequent and severe extreme weather events all accelerate, large numbers of people will be displaced. A recent World Bank report concluded that internal climate migration will increase through 2050, by which date 143 million people in sub-Saharan Africa, South Asia, and Latin America will be forced to move within their countries. 141 In 2018, nearly two-thirds of the people who faced internal displacement did so as a result of natural disasters, which are increasing in frequency and severity as climate change intensifies. 142 This type of litigation is made all the more likely (and complex) by climate change's role in compounding the displacing effects of political crises and other events.143

The 2017 Litigation Report also predicted an increase in litigation in the Global South. Although most of the climate cases filed to date have been brought in the U.S. and other developed countries, there is undoubtedly an increasing body of cases in the Global South that advance climate theories. 144 As others have noted, and the data provided here on the growing number and dispersion of cases confirm, this trend continues. 145

B. Consumer and investor fraud claims

Section 2.B.E introduced several cases that allege that companies failed to disclose information about climate risk or have disclosed information in a way that misleads consumers or investors. Governments have brought actions for this kind of conduct under consumer protection statutes and private parties have advanced a range of theories. It is reasonable to expect that such cases will continue to proliferate for at least two reasons. First, as statutes, regulations, and guidelines requiring companies to disclose climate risk become more common

and comprehensive, regulators, consumers, and investors will likely scrutinize that information, and file suits where those disclosures are made in a misleading or incomplete way. Even without formal governmental regulation, guidelines like the Task Force on Climate-related Financial Disclosures' recommendations are increasing the frequency and breadth of disclosures made by publicly traded companies.¹⁴⁶ Such cases present companies not only with financial risk, in the form of penalties or damages, but also reputational risk.147 Second, scientific advances continue to enhance the understanding of both extreme events and slow-onset environmental changes, and the likelihood of particular impacts in particular places is becoming more readily foreseeable. Failure to disclose foreseeable risk may give rise to litigation before, or after, a disaster occurs.

C. Pre- and post-disaster cases

As extreme weather events become more frequent and intense, and as slow onset changes overtake previously "safe" locations, cases premised on a defendant's failure to properly plan for or manage the consequences of those events are also likely to increase. These cases can either precede an extreme weather event or follow it.

Harris County v. Arkema and York County v. Rambo, discussed above, typify the types of cases that are filed after an extreme weather event has occurred. In each, courts have been asked to review a defendant's action or inaction in the face of known risks that climate-related extreme events would result in damage to plaintiffs' property and, in some cases, loss of life. The scope of potential liability from cases of this type is broad: any entity that arguably neglected an obligation to plan or prepare for climate-driven damages faces a risk that it will be sued in the wake of an extreme weather event or after slow-moving climate impacts injure potential plaintiffs.

Cases addressing extreme weather events are being filed before those events occur, as well, and those cases take on several forms. The Conservation Law Foundation v. ExxonMobil case discussed in Section 2.II.E, above, offers one example of how groups might lean on existing statutory requirements to seek to protect against environmental and public health disasters resulting from climate-related extreme events. Shareholder

suits seeking to compel companies to take climate mitigation actions provide one set of examples, as one function of such cases is to limit the share of a company's responsibility for future extreme weather events. In Tosdal v. NorthWestern, for example, a shareholder sought to compel a U.S. utility to consider his proposal that the company replace production from one of its coal-fired facilities with renewable power by 2025.149 The court ruled that the decision whether to shift power production from coal to renewables fell within the company's ordinary business practices such that it need not consider the shareholder proposal. 150 Still, the case is an example of the kinds of claims plaintiffs may bring before an extreme weather event seeking to limit the impact of such an event (in this case, the company's potential liability for its role in causing the event). Plaintiffs may similarly use the consumer and investor fraud theories discussed in the preceding section to advance the same goals.

D. Implementation challenges

As the number and variety of climate change cases increases, plaintiffs will inevitably continue seeking a broad range of remedies. But across all types of cases, implementation of those remedies remains a challenge. A stark example of the challenges that plaintiffs can face in this regard is Gbemre v. Shell Petroleum Development Company of Nigeria Ltd., where the Federal Court of Nigeria held that Shell's flaring of methane from gas production activities on the Niger Delta violated human rights to a clean and healthy environment protected under the Constitution of Nigeria and the African Charter on Human and Peoples' Rights. 151 For a variety of reasons, however, the decision was never enforced.¹⁵² Even ostensibly cooperative defendants may face real challenges implementing a court's orders, a fact acknowledged by the Dutch Supreme Court in Urgenda when it affirmed the lower court's decision requiring aggressive steps to reduce GHG emissions in the same year the emissions are to be achieved. 153

In contrast, in *Leghari v. Federation of Pakistan* the Lahore High Court granted the claims of Ashgar Leghari, a Pakistani farmer who sued the national and regional governments alleging they failed to carry out the National Climate Change Policy of 2012 and the Framework for Implementation of Climate Change Policy (2014-2030). As the court observed, the responsible government ministry had previously spelled out 734 "action points" for

implementing those acts and identified 232 of those as deserving priority. The court agreed the government failed to make adequate progress on those points and responded by creating a Climate Change Commission composed of representatives of key ministries, NGOs, and technical experts to monitor the government's progress on implementing climate policy. In 2018 the Climate Change Commission and the court agreed that sufficient progress had been made to dissolve the commission, replacing it with a Standing Committee to oversee the remaining action points to implement both acts.¹⁵⁴

Future Generations v. Ministry of the Environment and Others provides another example of how implementation can remain an ongoing challenge even if a court grants a climate-related remedy. In Future Generations, as noted above, the Supreme Court of Colombia recognized that fundamental constitutional rights are substantially linked to the environment and the ecosystem. 155 The court ordered the government to ensure it meets its commitment to reaching net zero deforestation by 2020, and included specific steps the government must take to do so. 156 An analysis one year later revealed that none of the specific actions the court ordered had been fully undertaken.¹⁵⁷ At the plaintiffs' request, the court agreed to convene public hearings at which the government would report on its progress, echoing the approach taken in Leghari.158

As growing numbers of cases are brought, we can expect that more will result in judicial orders that require defendants to take broad action to reduce economy-wide, sectoral or individual-source emissions; halt or slow deforestation and land use change; prevent fossil fuel extraction and protect peatlands; and increase the resiliency of communities. The complexity of efforts to mitigate and adapt to climate change impacts suggests that the ways in which those orders are implemented—and in other cases, how they are not implemented—will be the subject of additional litigation in the future.

E. Increased attention to climate attribution

Cases seeking to assign climate mitigation obligations to governments or corporations under rights-based theories, and cases seeking to impose liability on private actors for their contributions to climate change, may begin to enter more formal

evidentiary stages of litigation in the coming years. In order to prove the existence of an obligation or the breach of a duty, plaintiffs or petitioners in some cases will likely have to demonstrate both that their injuries were caused by climate change and that the defendant substantially contributed to climate change. Although the science that demonstrates these connections is increasingly robust, 159 courts have yet to fully reach the merits of these types of claims, so there are few judicial statements directly relevant to the topic. As further discussed below, attribution is central to climate litigation, and as more cases are filed and reach the substance of the plaintiffs' claims, one can expect to see increased judicial attention paid to this issue.

F. Increasing use of international adjudicatory bodies

Finally, it is reasonable to expect to see litigants continuing to bring claims before international adjudicatory bodies. There are several reasons why cases of this type are likely to continue to proliferate. First, there is an abundance of favorable soft law available to plaintiffs in international fora. For example, the Paris Agreement required signatories to develop nationally determined contributions representing their "highest possible ambition," providing a basis for litigants to argue that governments doing anything less are not living up to that commitment.160 And favorable statements from the Inter-American Court of Human Rights¹⁶¹ and the United Nations Human Rights Council¹⁶² solidify the consensus that climate rights are well recognized in international soft law. Recent petitions are seeking to apply these well-recognized rights before the Human Rights Committee and the Committee on the Rights of the Child,163 and with U.N. Special Rapporteurs,164 each claiming that national governments' responses to climate change have been inadequate.

International fora offer strategic opportunities that may be unavailable for plaintiffs in national and subnational courts. First, domestic regimes may be unfriendly or ineffectual when seeking to hold domestic governments accountable. Even though courts throughout the world have recognized the scientific consensus on climate change, some may be reluctant to issue orders forcing other branches of government to act for reasons not grounded in law so much as politics or other factors. The prevalence of actions

before international bodies further suggests that litigants recognize that their chances of obtaining the relief or statement they seek there may be better than in domestic courts. 166 Second, litigants can choose to bring cases in international fora as part of a broad strategy to effect change in the law. Decisions reached by international bodies influence the way judges and other stakeholders view the law, including at a domestic level. 167 Opinions from international bodies can be used by litigants in other advocacy contexts, both formal and informal, even if those opinions do not create enforceable obligations. 168

At the same time, it is important to note that international fora may offer strategic opportunities for anti-regulatory plaintiffs as well. Corporations have begun using the investor-state dispute settlement (ISDS) system already built into over 3,000 bilateral investment treaties and expected in several other regional trade agreements not yet in force. 169 ISDS processes allow foreign investors to seek compensation from host governments

before an international tribunal, creating an avenue to implicitly challenge domestic climate change regulation that imposes costs on an investor. For example, in Westmoreland Coal Company v. Canada, a U.S. coal producer is seeking over \$350 million in compensation after Alberta's provincial government decided to phase out coal-fired power plants in the province by 2030.170 In TransCanada v. USA, pipeline investors in Canada filed a claim seeking \$15 billion in compensation after the U.S. government denied necessary permits that would have allowed construction of the Keystone XL pipeline from Canada to the U.S.¹⁷¹ The case has been discontinued as the result of a reversal on the permit decision, but it remains illustrative of the prospects of future litigation in the ISDS area. Even though ISDS cases cannot directly invalidate a host country's regulation, they can create a meaningful disincentive for governments interested in adopting strict climate regulation. 172 As a result, ISDS cases provide an opportunity for strategic litigation with implications that extend beyond the outcome of an individual case.

PART 2 NOTES

- 1 2017 Litigation Report at 10-11.
- 2 The countries in which a climate change case was identified for the first time since 2017 are: Argentina, Brazil, Chile, Ecuador, Estonia, Indonesia, Japan, Kenya, Luxembourg, Mexico, Peru, Poland, Slovenia, South Korea, and Uganda.
- 3 These 55 European Union cases are in addition to matters brought in national courts of member states.
- 4 The likelihood that climate litigation will be filed in a particular country depends on a range of factors that include the country's legal culture, whether unsuccessful plaintiffs must pay the defendants' costs, the degree of frustration over governments' actions or inactions on climate change, how frequent, extensive, and damaging climate-driven physical losses are becoming, and the existence of regulatory frameworks and judicial precedent that establish enforceable climate-related rights and obligations.
- 5 As the analysis below indicates, several cases demonstrate features of more than one trend and thus appear in multiple sections.
- 6 César Rodríguez-Garavito, Human Rights: The Global South's Route to Climate Litigation, 114 AJIL Unbound 40 (2020); Jacqueline Peel & Hari Osofsky, A Rights Turn in Climate Change Litigation? 7 Transnat'l Envtl. L. 37, 40 (2018) ("[E]merging case law, such as the Leghari and Urgenda decisions, illustrates a trend towards petitioners increasingly employing rights claims in climate change lawsuits, and a growing receptivity of courts to this framing.").
- 7 Greenpeace Nordic Ass'n v. Ministry of Petroleum and Energy (Jan. 23, 2020), 18-060499ASD-BORG/03 (Nor.).
- 8 In re Court on its own motion v. State of Himachal Pradesh, M.A. Nos. 389/2014, 1145/2015, 1250/2015, 324/2016 & 325/2016 (Nat'l Green Tribunal).

- 9 Constitutional Court, Feb. 8, 2016, Decision C-035/16. Additional cases identified in the 2017 Litigation Report that have invoked a constitutional or domestic right to a clean or healthy environment include: In re Vienna-Schwechat Airport Expansion, (rejecting a third runway at Vienna airport in part because the constitutions of Austria and the region of Lower Austria both enshrine commitments to sustainability and environmental protection); Gbemre v. Shell Petroleum Development Company of Nigeria Ltd. (finding that Shell's gas flaring violated the constitutionally protected right to a "pollution-free and healthy environment"); and Leghari v. Federation of Pakistan (finding that government's failure to prepare for and respond to climate change violated the constitutionally protected right to a "healthy and clean environment").
- 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) in Relation to Articles 1(1) and 2 of the American Convention on Human Rights), Advisory Opinion OC-23/17, Inter-Am. Ct. H.R. (Nov. 15, 2017).
- 11 Id. at IX. ¶ 5.
- 12 Petition of Torres Strait Islanders to the United Nations Human Rights Committee Alleging Violations Stemming from Australia's Inaction on Climate Change, http://climatecasechart.com/non-us-case/ petition-of-torres-strait-islanders-to-the-united-nations-human-rightscommittee-alleging-violations-stemming-from-australias-inaction-onclimate-change/
- 13 *Id*
- 14 Sacchi et al. v. Argentina et al., Communication to the Committee on the Rights of the Child (Sept. 23, 2019).

- Rights of Indigenous People in Addressing Climate-Forced Displacement, http://climatecasechart.com/non-us-case/rights-of-indigenous-people-in-addressing-climate-forced-displacement/. The complaint was submitted to the Special Rapporteurs on: the Human Rights of Internally Displaced Persons; the Rights of Indigenous Peoples; the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment; the Right to Food; the Field of Cultural Rights; the Right of Everyone to the Enjoyment of the Highest Attainable Standard of Physical and Mental Health; Adequate Housing as a Component of the Right to an Adequate Standard of Living; Extreme Poverty and Human Rights; Contemporary Forms of Racism, Racial Discrimination, Xenophobia and Related Intolerance; and the Human Right to Safe Drinking Water and Sanitation.
- 6 Id.
- 17 Urgenda Foundation v. The State of The Netherlands, The Supreme Court of the Netherlands, Case No. 19/00135 (20 December 2019) (unofficial translation from the court).
- 18 Corte Suprema de Justicia [C.S.J.] [Supreme Court], abril 5, 2018, M.P: L. Villabona, Expediente: 11001-22-03-000-2018-00319-01 (Colomb.).
- 19 Id.
- 20 Juliana et al. v. United States, No. 6:15-cv-01517, First Amended Complaint for Declaratory and Injunctive Relief ¶ 98 (D. Or. Sept. 10, 2015).
- 21 Juliana v. United States, 947 F.3d 1159, 1171 (9th Cir. 2020)
- 22 ENVironnement JEUnesse v. Canada, No. 500-06-000955-183 (2018).
- 23 Id
- 24 S.T.F., No. 0024408-68.2020.1.00.0000, Relator: Min. Roberto Barroso 12.06.2020 (Braz.).
- 25 Kim Yujin et al. v. South Korea, Constitutional Complaint at pp. 2-3.
- 6 Kim Yujin et al. v. South Korea, Constitutional Complaint at pp. 7–12.
- 27 Álvarez et al. v. Peru, http://climatecasechart.com/non-us-case/alvarez-et-al-v-peru
- 28 Youth Verdict v. Waratah Coal, [2020] QLC 33 (Australia), http:// climatecasechart.com/non-us-case/youth-verdict-v-waratah-coal/
- 29 Human Rights Act 2019 (Old) (Australia), https://www.legislation.qld. gov.au/view/pdf/asmade/act-2019-005
- 30 The Swiss petitioners ground their claims in articles 10 (right to life), 73 (sustainability principle), and 74 (precautionary principle) of the Swiss Constitution, and in articles 2 and 8 of the European Convention on Human Rights, which Switzerland has ratified. Union of Swiss Senior Women for Climate Protection v. Swiss Federal Council [Verein KlimaSeniorinnen Schweiz v. Bundesrat], at para. 1(a) (filed Oct. 25, 2016).
- 31 Lho'imggin et al. v. Her Majesty the Queen, No. T-211-20, Complaint (Fed. Ct. Feb 10, 2020) (Canada).
- 32 Id. at ¶85 ("The peace, order and good government power imposes a positive obligation on the defendant to pass laws that ensure that Canada's GHG emissions are now, and will be into the foreseeable future, consistent with its constitutional duty to the plaintiffs and with its international commitments").
- 33 Id. at ¶ 88.
- 34 Maria Khan v. Pakistan, Constitutional Petition No. 8960 of 2019, at ¶ 2-3.
- 35 Maria Khan v. Pakistan, Constitutional Petition No. 8960 of 2019, at ¶ 27C–E.
- 36 Greenpeace et al. v. Austria, http://climatecasechart.com/non-us-case/greenpeace-v-austria/
- 37 http://climatecasechart.com/non-us-case/greenpeace-v-austria/
- 38 Victoria Segovia et al. v. Climate Change Commission, 806 Phil. 1019 (2017) (Philippines).
- 39 Id. at 8-10.
- 40 Id. at 10-11
- 41 Greenpeace Nordic Ass'n v. Ministry of Petroleum and Energy (Jan. 23, 2020), 18-060499ASD-BORG/03 (Nor.),
- 42 See Cristy Clark et al., Can You Hear the Rivers Sing, 45 Ecology L.Q. 787, 791 (2018).
- 43 Center for Social Justice Studies et al. v. Presidency of the Republic et al. (November 10, 2016) Judgment T-622/16 (The Atrato River Case), Constitutional Court of Colombia (2016), http://files. harmonywithnatureun.org/uploads/upload838.pdf
- 44 Te Awa Tupua (Whanganui Claims Settlement) Act 2017, s 14 (N.Z.)
- 45 Te Urewera Act § 11 (2014).
- 46 Mohd. Salim v. State of Uttarakhand & Others, (2017) Uttarakhand HC 126 (India).
- 47 Lalit Miglani v. State of Uttarakhand & Others, (2017) MCC 139/2017
- 48 Colorado River Ecosystem v. Colorado, Amended Complaint for Declaratory and Injunctive Relief at ¶ 113, 2017 WL 9472427 (Nov. 16, 2017).
- 49 Toledo Mun. Code ch. XVII, § 254(a)

- 50 Drewes Farms P'ship v. City of Toledo, 441 F. Supp. 3d 551, 557 (N.D. Ohio 2020).
- 51 See also infra Section 2.II.F.
- 52 See 2017 Litigation Report at 14–18.
- 53 Belgium, Our Children's Trust, https://www.ourchildrenstrust.org/belgium
- 54 Friends of The Irish Environment CLG v. Ireland, [2017 No. 793 JR].
- 55 Friends of The Irish Environment CLG v. Ireland, [2020] IESC 49.
- 56 Id. at ¶¶ 9.1, 9.3.
- 57 Mataatua District Maori Council v. New Zealand, Second Amended Statement of Claim at ¶19(d) [2019] WAI 2607.
- 58 Sheikh Asim Farooq v. Federation of Pakistan, (2018) W.P. No. 192069/2018.
- 59 Id. at ¶ 83.
- 50 Peter Sabo and Others v. European Parliament and Council of the European Union, Case T-141/19, ECLI:EU:T:2020:179.
- 61 Plan B Earth et al. v. Sec'y of State, [2020] EWCA Civ 214.
- 62 Id. at ¶ 237
- 63 R (on the application of Friends of the Earth Ltd. and others) (Respondents) v. Heathrow Airport Ltd. (Appellant), UKSC Case No. 2020/___. Separate plaintiffs have now filed a lawsuit seeking judicial review of the U.K.'s energy National Policy Statements, alleging that there have been fundamental changes of circumstances since the statements were designated in 2011. See Vince et al. v. Sec'y of State, CO/1832/2020 (Planning Court).
- 64 [2019] NSWLEC 7.
- 65 [2019] NSWLEC 7 at ¶ 22.
- 66 [2019] NSWLEC 7 at ¶ 688.
- 67 Ecology Action, et al. v. Minister of Environment and Climate Change, CAN 2020 FC 663.
- 68 Application at para. 20, Ecology Action, et al. v. Minister of Environment and Climate Change (May 11, 2020).
- 69 Order & Reasons at para. 28, Ecology Action, et al. v. Minister of Environment and Climate Change (June 2, 2020).
- 70 Order & Reasons at para. 40, Ecology Action, et al. v. Minister of Environment and Climate Change (June 2, 2020).
- 71 Ali v. Pakistan, Constitutional Petition No. ___ / I of 2016.
- 72 Constitutional Court, Feb. 8, 2016, Decision C-035/16.
- 73 Private Corporation for the Development of Aysen, et al. v. Environmental Evaluation Service of Chile, (2016) R-42-2017.
- 74 Id.
- 75 Save Lamu et al. v. National Environmental Management Authority and Amu Power Co. Ltd, Tribunal Appeal No. Net 196 of 2016 available at http://kenyalaw.org/caselaw/cases/view/176697/
- 76 WildEarth Guardians v. U.S. Bureau of Land Mgmt., No. 4:18-cv-00073, 2020 WL 2104760, at *11 (D. Mont. May 1, 2020)
- 77 WildEarth Guardians v. Zinke, 368 F. Supp. 3d 41, 67–83 (D.D.C. 2019). In this case, the court did not immediately vacate the leases, but retained jurisdiction over the matter while the government revisits the assessments and invited plaintiffs to address whether the renewed assessments satisfy the government's obligation. Id. at 85.
- 78 [2020] EWHC 1303 (Admin).
- 79 Citizens' Committee on the Kobe Coal-Fired Power Plant v. Japan, Climate Case Chart, http://climatecasechart.com/non-us-case/ citizens-committee-on-the-kobe-coal-fired-power-plant-v-japan/.
- 30 Campaigners take Estonian government to court over plans to build new shale oil plant, euronews (June 16, 2020), https://www.euronews. com/2020/06/16/campaigners-take-estonian-government-to-courtover-plans-to-build-new-shale-oil-plant.
- 81 [2019] EWHC 1738 (Admin).
- 82 Montana et al. v. Washington, No. 220152 Motion for Leave to File Bill of Complaint, Bill of Complaint, and Brief in Support (U.S. Jan. 21, 2020).
- 83 Maria L. Banda, Climate Science in the Courts: A Review of U.S. and International Judicial Pronouncements vi (2020) ("[V]ast judicial agreement exists on the causes, extent, urgency, and consequences of climate change . . . [but] the judicial consensus on climate science has not translated into judicial intervention.")
- 84 IPCC AR5, WG1 § 6.3
- See 2017 Litigation Report at 20, discussing Connecticut v. Am. Elec. Power Co., 582 F.3d 309, 318 (2d Cir. 2009), rev'd, 564 U.S. 410 (2011); Native Vill. of Kivalina v. Exxon Mobil Corp., 663 F. Supp. 2d 863, 880–81 (N.D. Cal. 2009), aff'd on other grounds, 696 F.3d 849 (9th Cir. 2012); Washington Envtl. Council v. Bellon, 732 F.3d 1131, 1143 (9th Cir. 2013) (concluding that health impacts, property damage, and impaired recreational and aesthetic opportunities confer standing on the plaintiffs, but that plaintiffs could not differentiate defendant's share of responsibility from the "numerous independent sources of GHG emissions, both within and outside the United States.").

- 86 See, e.g., State v. American Petroleum Institute, No. 62-CV-20-3837 (Minn. 2nd Dist. Ct. June 24, 2020); City & County of Honolulu v. Sunoco LP, No. 1CCV-20-0000380 (Haw. 1st Cir. Ct. Mar. 9, 2020); Mayor & City Council of Baltimore v. BP P.L.C., No. 24-C-18-004219 (Md. Cir. Ct. July 20, 2018); Rhode Island v. Shell Oil Products Co., No. PC-2018-4716 (R.I. Super. Ct. July 2, 2018); King County v. BP P.L.C., No. 18-2-11859-0 (Wash. Super. Ct. May 9, 2018); Board of County Commissioners of Boulder County, No. 2018CV030349 (Colo. Dist. Ct. Apr. 17, 2018); City of New York v. BP P.L.C., No. 1:18-cv-00182 (S.D.N.Y. Jan. 9, 2018); City of Oakland v. BP p.L.c., No. CGC-17-561370 (Cal. Super. Ct. Sept. 19, 2017); County of San Mateo v. Chevron Corp., No. 17CIV03222 (Cal. Super. Ct. July 17, 2017).
- 87 For example, in *City of New York v. BP P.L.C.*, New York City brought a suit against five of the world's largest fossil fuel producers, alleging that through worldwide production, marketing, and sale of those products, the defendants have contributed to temperature increases and sea-level rise that place the city at risk. 325 F. Supp. 3d 466, 468 (S.D.N.Y. 2018). The court concluded that addressing global emissions were a subject for political branches of government to decide, not the courts, and dismissed plaintiffs' case. The case has now been appealed, but the court of appeals has not issued a decision.
- 88 In re Greenpeace Southeast Asia and Others, Case No. CHR-NI-2016-0001 (Sept. 9, 2019) (Phil.). As of this writing, the commission has not yet issued a final report.
- 89 Az. 2 O 285/15 Essen Regional Court [2015].
- 90 [David Loses the Fight Against Goliath], Frankfurter Allgemeine Zeitung, Dec. 15, 2016, (["A flood risk would however not be attributed singly to RWE AG."].
- 91 [2020] NZHC 419.
- 92 [2020] NZHC 419 at ¶ 82.
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- 107 Pridel Investments v. Coffs Harbour City Council, [2017] NSWLEC 1042.
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- 142 See Internal Displacement Monitoring Centre, Global Report on Internal Displacement [in] 2019 6 (2019), https://www.internaldisplacement.org/sites/default/files/publications/documents/2019-IDMC-GRID.pdf; see also Intergovernmental Panel on Climate Change [IPCC], Special Report: Global Warming of 1.5°C (Valerie Masson-Delmotte et al. eds., 2018).
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- 147 See TCFD Recommendations at 6.
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- 149 Tosdal v. NorthWestern Corp., No. CV 19-205-M-DLC, 2020 WL 896757, at *1 (D. Mont. Feb. 25, 2020).
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- 151 Gbemre v. Shell PDC Nigeria Limited, FHC/B/CS/53/05.
- 152 Bukola Faturoti, Godswill Agbaitoro & Obinna Onya, Environmental Protection in the Nigerian Oil and Gas Industry and Jonah Gbemre v. Shell PDC Nigeria Limited: Let the Plunder Continue, 27 Afr. J. Int'l & Comp. L. 225, 235 (2019) ("Unfortunately, Gbemre has been turned into a pyrrhic victory by the Nigerian federal government when it failed to implement the decision of the court. While the court may have the power to declare unconstitutional any law made by the legislative arm of the government, this power does not include law-making.").
- 153 Urgenda Foundation v The State of The Netherlands, The Supreme Court of the Netherlands, Case No. 19/00135 (20 December 2019) ¶ 7.5.3 ("[T]he State has not sufficiently substantiated that the reduction of at least 25% by 2020 is an impossible or disproportionate burden, as . . . the State has moreover been aware of the seriousness of the climate problem for some time and initially pursued a policy aimed at a 30% reduction by 2020.").
- 154 Joana Setzer & Lisa Benjamin, Climate Change Litigation in the Global South: Constraints and Innovations, 9 Transnat'l Envtl. L. 77, 97–98 (2020).
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- 158 Rodriguez-Garavito, supra note 24.
- 159 Michael Burger et. al., The Law and Science of Climate Change Attribution, 45 Colum. J. Envtl. L. 57, 65 (2020) ("[T]he existing body of detection and attribution research is now quite large and the findings are sufficiently robust to support a wide variety of applications, including . . . policy, planning, and legal functions.")
- 160 Paris Agreement, Art. 4(3).
- 161 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) in Relation to Articles 1(1) and 2 of the American Convention on Human Rights), Advisory Opinion OC-23/17, Inter-Am. Ct. H.R. (Nov. 15, 2017).

- 162 The U.N. Human Rights Council has adopted a series of resolutions clarifying how climate change relates to human rights. See, e.g., H.R.C. Res 42/21 (July 12, 2019) (recognizing the rights of persons with disabilities are disproportionately burdened by climate change); H.R.C. Res. 35/20 (June 22, 2017) (recognizing the urgency of addressing rights of displaced persons in light of negative impacts of climate change); H.R.C. Res. 32/33 (July 1, 2016) (encouraging parties to incorporate human rights into mitigation and adaptation actions); H.R.C. Res. 26/27 (July 15, 2014) (encouraging all states to increase international dialogue and cooperation to meet climate needs of developing countries); H.R.C. Res. 18/22 (Oct. 17, 2011) (recognizing that human rights obligations can inform and strengthen climate change policy making); H.R.C. Res. 10/4 (March 25, 2009) (affirming that climate change impacts effect the enjoyment of human rights).
- 163 Sacchi et al. v. Argentina et al., Communication to the Committee on the Rights of the Child (Sept. 23, 2019).
- 164 Rights of Indigenous People in Addressing Climate-Forced Displacement, http://climatecasechart.com/non-us-case/rights-of-indigenous-people-in-addressing-climate-forced-displacement/
- 165 Banda, supra note 101, at 109 ("At the appellate level, the judiciary, especially in the United States, has exercised restraint, largely deferring to the representative branches of government to bring forward solutions to the climate challenge.")
- forward solutions to the climate challenge.").

 166 Cf. Rodriguez-Garavito, supra note 24 at 43 ("When courts are independent and have adequate institutional capacity, the judicial route is a particularly attractive one for litigants frustrated with the government's or corporations' actions or omissions with regards to environmental protection.").
- 167 See Kenneth W. Abbott, Strengthening the Transnational Regime Complex for Climate Change 3 Transnat'l Entvl. L. 57, 74 (2014) ("Transnational demonstration effects reveal the feasibility, benefits and appropriateness of rules, programmes or activities. Transnational norms and programmes modify the political calculations of interest groups within states, converting participants from potential opponents to supporters.").
- 168 Hari M. Osofsky, Climate Change Litigation as Pluralist Legal Dialogue, 43 Stan. J. Intl'l L. 181, 218 (2007) ("Although the formal effects of supranational petitioning processes are often limited, they can potentially have a far greater informal impact. They may put pressure on a government to change its behavior, even as that government denounces the supranational body's decision. More indirectly, these petitions can be used in other advocacy contexts-e.g., as persuasive authority in more binding sub-national and national litigation or as symbols in media campaigns-and thus become part of broader civil society initiatives.").
- 169 Kyla Tienhaara, Regulatory Chill in a Warming World: The Threat to Climate Policy Posed by Investor-State Dispute Settlement 7 Transnat'l Envtl. L. 229, 230 (2018).
- 170 Westmoreland Coal Company v. Canada (I), (ICSID Case No. ARB/18/__). https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/936/westmoreland-v-canada.
- 171 TransCanada Corporation and TransCanada PipeLines Limited v. United States of America (ICSID Case No. ARB/16/21), https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/720/transcanada-v-usa
- 172 Tienhaara, supra note 187, at 233. ("[T]he regulatory chill hypothesis suggests that in some instances (not all, or there would be no ISDS cases) governments will fail to enact or enforce bona fide regulatory measures (or modify measures to such an extent that their original intent is undermined or their effectiveness is severely diminished) as a result of concerns about ISDS.").



3 Legal Issues in Climate Change Litigation

Despite their many differences, a common set of issues pervades climate cases. These include questions about who is the appropriate party to bring the case, what source of climate-related rights or obligations is implicated by the harms they experienced, and whether the tribunal to which they bring their claim is equipped to provide a remedy. This part describes the ways these issues arise at the different stages of a climate change case.¹

I. Justiciability

Justiciability encompasses all the threshold barriers that may prevent a plaintiff's claim from being considered by the court.² Justiciability includes both formal, legal dimensions and practical questions for courts with discretion in how they apply these doctrines. The specific barriers vary by jurisdiction, but the two that pose notable challenges for climate change litigants are common to most jurisdictions. First, a plaintiff must have standing to bring the case. Second, a plaintiff's claim must not require the court to resolve questions that are reserved for other branches of government to decide.

Although the contours of justiciability questions vary across jurisdictions, most share two critical elements. First, justiciability questions are preliminary, meaning that courts apply them before reaching any review of the substance of a plaintiff's claim. Second, justiciability doctrines are theoretically agnostic as to the merits of the claim, meaning that neither the importance of the question nor the strength of a plaintiff's likely evidence is relevant if the claim cannot be heard.³

A. Standing

Courts in most jurisdictions must consider whether the parties attempting to bring a legal action have

"standing" to bring their claim. "Standing" refers to the set of requirements that a plaintiff must meet in order to demonstrate that they are entitled to bring a claim before the court. For example, plaintiffs in the United States must show that they were injured, that their injury was caused by defendants' actions, and that there is a remedy the court could order that would mitigate or compensate for the injury in some way.4 Legal definitions of who has standing vary across different jurisdictions, but generally include requirements that the parties bringing a legal action have a genuine and current stake in the outcome, that the dispute is one a court is capable of resolving, and that the court has some authority to order a remedy that would help the plaintiffs.

The 2017 Litigation Report noted that the doctrine has been a central issue in climate litigation in the U.S.,⁵ and an occasional challenge for plaintiffs outside the U.S.,⁶ and that the question of standing had featured less prominently in courts in the developing world, as evidenced by cases in Pakistan,⁷ India,⁸ Nigeria,⁹ Columbia,¹⁰ and the Philippines.¹¹

Recent decisions confirm that standing remains a prominent question in climate cases, and that courts' approaches vary. A recent decision from the U.S. Court of Appeals for the District of Columbia accepts that global climate change can result in injury to a specific plaintiff. In *Natural Resources Defense Council v. Wheeler*, plaintiff challenged the government's decision to repeal a GHG regulation, thereby allowing increased emissions of hydrofluorocarbons (HFCs).¹² The court's discussion of standing is matter-of-fact: "the [change] will lead to an increase in HFC emissions, which will in turn lead to an increase in climate change, which will threaten petitioners' coastal property." Since the court could undo



the regulatory challenge, it reasoned that the petitioners had not only established injury and causation, but also that the court was empowered to redress their injury.¹⁴

In contrast in *Smith v. Fronterra Co-Operative Group Limited*, the Auckland High Court found that a plaintiff did not have standing to pursue a nuisance claim premised on GHG emissions

where "the damage claimed by [the plaintiff] is neither particular nor direct; it is not appreciably more serious or substantial in degree than that suffered by the public generally and there is no difference in kind between the damage that . . . other land owners, and members of the public who live in or use the coastal/marine area may suffer." Similarly, in Armando Ferrão Carvalho and Others v. The European Parliament and the Council

a group of EU citizens brought a claim in the EU General Court alleging that the EU's greenhouse gas reduction targets were insufficient, impairing the plaintiffs' fundamental rights. The court dismissed the action because plaintiffs were not directly and individually affected by the EU's emissions targets.

Finally, the question of standing remains less of a barrier in courts in developing countries. In *Save Lamu et al. v. National Environmental Management Authority and Amu Power Co. Ltd.*, for example, Kenya's National Environmental Tribunal simply noted that claimants challenging a new coal plant's license were aggrieved.¹⁷

Standing in Juliana & Urgenda

Two of the most famous climate cases, Juliana v. United States and Urgenda Foundation v. State of the Netherlands, highlight how complex a court's inquiry into standing can be, and how even judges who hear the same evidence from the same parties may reach different, even contradictory conclusions about whether the case may proceed.

In Juliana, 21 youth plaintiffs filed suit against the U.S. government asking it to develop a plan to phase out fossil fuel emissions and stabilize the climate system to protect vital resources upon which the plaintiffs depend. 18 They argued that the climate system is critical to their constitutional rights to life, liberty, and property; that the government violated plaintiffs' rights by allowing fossil fuel production, consumption, and combustion at dangerous levels; and that the government failed to maintain the integrity of public trust resources within the sovereign's jurisdiction for present and future generations. The plaintiffs asked the court to "[o]rder Defendants to prepare and implement an enforceable national remedial plan to phase out fossil fuel emissions and draw down excess atmospheric CO₂ so as to stabilize the climate system."19

The trial court agreed that plaintiffs had standing and could proceed to the substance of their claims. On appeal of that decision, however, a 2–1 majority of the appellate court concluded that plaintiffs did not have standing because they could not show a decision in their favor would remedy their harm. Even accepting that "[t]he record leaves little basis for denying that climate change is occurring at an increasingly rapid pace," and that "[t]he government affirmatively promotes fossil fuel use in a host of ways," the majority expressed skepticism about whether

halting U.S. policies promoting fossil fuel use would actually help heal plaintiffs' injuries. Further, the majority went on to conclude that it lacked the power to grant the relief plaintiffs sought, since doing so would require "a host of complex policy decisions entrusted, for better or worse, to the wisdom and discretion of the executive and legislative branches."²⁰

In contrast, the dissenting judge wrote that even a small step toward slowing climate change would help, and plaintiffs could therefore pursue their claim: "The majority portrays any relief we can offer as just a drop in the bucket. . . . But we are perilously close to an overflowing bucket. These final drops matter. A lot."²¹ In concluding that the court has a duty to remedy a constitutional harm, the dissenting judge pointed out that courts are often compelled to "fashion and effectuate relief to right legal wrongs, even when—as frequently happens—it requires that [they] instruct the other branches as to the constitutional limitations on their power."²²

The majority's decision is binding despite the points raised by the dissent. The plaintiffs are seeking review of the majority's decision.

In *Urgenda*, the lower court held that Urgenda had standing on its own behalf under a Dutch law specifically allowing class actions brought by interest groups.²³ The court rejected the argument that the 886 individual claimants had standing, however, "partly in view of practical grounds" because their claims could not result in a different outcome than Urgenda's claim as an organization.²⁴ The District Court's decision was upheld at the Court of Appeals and not disputed when the parties ultimately reached the Dutch Supreme Court.

B. Separation of powers

Separation of powers refers to the principle that one branch of government generally cannot act outside the authority granted to it by a constitution or other laws. This doctrine is particularly significant where a court is asked to issue an order that would invade the authority granted to another branch of government. In the context of litigation, laws that mandate a separation of powers typically dictate that courts should only resolve disputes between the parties actually before the court (rather than engaging in quasi-legislative work), disputes for which there is a principled basis in law or equity to decide which party's claim should prevail, and disputes arising from harms that the court has the power to remedy.

The 2017 Litigation Report noted that, like standing, separation of powers has been a central issue in the climate litigation in the U.S.²⁵ In *Connecticut v. AEP*, the U.S. Supreme Court concluded that by enacting legislation concerning air pollution, the legislature had "displaced" the judiciary's authority to provide a remedy for common law claims brought under federal law that allege climate change harms.²⁶ The Supreme Court of the Netherlands took a different view in *Urgenda*, concluding that it had the authority to determine that the government's failure to legislate could violate a duty, and that it could order the government to achieve a certain goal so long as the government retained discretion over how it would reach that goal.

Separation or balance of powers plays a central role in several recent cases. In Family Farmers and Greenpeace Germany v. Germany, plaintiffs sued to compel the German government to meet its stated goal of reducing national GHG emissions by 40 percent of 1990 levels by 2020. The court declined to order the government to make specific changes to the national Climate Protection Program, citing the government's wide discretion in selecting what measures to use to achieve emissions goals. But the court agreed with plaintiffs that the government's policy was subject to judicial review and must, at minimum, effectively protect fundamental rights potentially vulnerable to climate change impacts.²⁷

In Friends of the Irish Environment CLG v. Gov't of Ireland, the lower court rejected a claim that Ireland's approval of a National Mitigation Plan addressed to climate change issues should

be quashed, because the plan did not include adequate measures to achieve Ireland's GHG reduction goals.²⁸ The court expressed significant skepticism about whether the plan was justiciable at all, and ultimately refused plaintiffs' claim noting that "[t]here may be circumstances in which a court may make a mandatory order against an organ of State, but only when there is a conscious and deliberate decision by the organ of the State to act in breach of its constitutional obligations to other parties."29 In a decision issued 31 July 2020, the Supreme Court rejected this reasoning, quashing the plan and adding that "what might well have been a non-justiciable question of policy clearly became justiciable . . . by virtue of the 2015 Act. The fact that policy became law obliges this Court to consider whether the Plan complied with the legal obligations" imposed by the 2015 Act. 30

In Future Generations v. Ministry of the Environment and Others, a group of 25 youth plaintiffs sued the Colombian government and several other entities, arguing that the government's failure to prevent deforestation violates plaintiffs' fundamental rights.³¹ The Supreme Court of Colombia recognized that the fundamental constitutional rights of life, health, minimum subsistence, freedom, and human dignity were substantially linked to the environment and the ecosystem. The court ordered the government to formulate and implement action plans to address deforestation in the Amazon region.

II. Sources of Climate Obligations

In addition to showing that a claim is justiciable, a plaintiff must also articulate a judicially enforceable basis for the climate right or obligation the defendant is alleged to have violated. Plaintiffs around the world have tested a wide array of theories. In this section, we expand on three of the most frequently cited bases for climate cases, though individual cases may assert multiple theories or hybrid arguments that draw on more than one basis.

A. Statutory or policy causes of action

In many jurisdictions, statutes or national policies have codified climate change obligations for private and public actors, providing a basis for legal actions disputing those obligations' legality, applicability, or implementation. The specific contours of the rights and obligations codified vary significantly across jurisdictions, but statutory causes of action are,

by far, the most frequently cited bases for climate litigation. Of nearly 1,600 cases tracked in the Sabin Center for Climate Change Law's litigation databases, over 1,200 are premised on statutory or policy causes of action. In the U.S. as of July 2020, plaintiffs have filed 200 cases under the Clean Air Act, 252 under the National Environmental Policy Act (NEPA), and 139 under the Endangered Species Act. 32 That is approximately 50 percent of all U.S. cases, filed under only three statutes.

The 2017 Litigation Report highlighted several statutory schemes that have spawned significant litigation. The development of the EU Emissions Trading System under the Kyoto Protocol led to a stream of cases in both national and EU courts challenging the directive establishing the scheme and challenging its applicability to certain sectors or countries.33 Environmental impact assessment (EIA) and environmental permitting requirements comprise a large portion of Australian climate change litigation.34 Notably, Australian state courts have generally agreed that direct GHG emissions should be considered in the permitting process, but have diverged in regards to indirect, or "downstream," emissions.35 In the past, they have not usually found emissions sufficient to justify rejection of a proposed project,36 but more recent cases suggest that they may be becoming more inclined to support rejecting a project principally on climate grounds.37

Not surprisingly, where countries have adopted national laws or policies that explicitly address climate change those laws frequently provide a basis for climate change litigation. No such laws articulate a private right of action against an individual emitter for their share of the responsibility for climate change, but where these laws articulate a national commitment to a specific mitigation goal, they have provided a basis for cases challenging governments' implementation of that goal. The 2017 Litigation Report noted examples of such actions in Austria, New Zealand, and Pakistan.38 Recent cases have similarly used statutes and policies as the basis for cases against governments. In Friends of the Irish Environment CLG v. Gov't of Ireland, plaintiffs successfully challenged Ireland's approval of a National Mitigation Plan, arguing the plan violated Ireland's Climate Action and Low Carbon Development Act.39 In VZW Klimatzaak v. Kingdom of Belgium, still pending after a three-year procedural dispute, plaintiffs allege that Belgian law requires the government to do more to mitigate climate change.40 And in Sheikh Asim Faroog v. Federation of Pakistan, Pakistani citizens sued their government and several administrative agencies for failing to protect national forests under legislative acts designed to protect and restore forests.41

B. Constitutional and human rights

As noted above, the number of actions that assert that climate inaction violates constitutional and human rights has increased in recent years. Yet, these cases are quantitatively a small proportion of all climate litigation—of nearly 1,600 cases in the Sabin Center's database, just over 100 are based on constitutional and human rights, and the public



trust doctrine. Still, as the discussion on these "climate rights" cases above indicates, they have an outsized impact on overall climate governance because they typically seek bold, conspicuous remedies. And unsurprisingly, ambitious "climate rights" cases have garnered disproportionate attention in the scholarship on climate change litigation to date.⁴²

The cases in this category include both those premised on fundamental and human rights and cases premised on constitutional rights in individual countries. Most nations around the world have guaranteed their citizens a constitutional right to a clean environment, a healthy environment, or both-and courts around the world have begun to grapple with the implications of these provisions for climate litigants. According a 2019 survey, at least seven countries have incorporated rights specifically addressing climate change into their constitutions.43 And as of a 2012 survey, there were already at least 92 countries that have granted constitutional status to the right to a clean or healthy environment, and a total of 177 countries recognize the right either through their constitutions, environmental legislation, court decisions, or ratification of an international agreement.44 Litigants bringing climate actions in national courts have been a primary driver in forcing courts to consider the reach of the constitutional right to a clean or healthy environment in the context of addressing climate harms. Human rights treaties do not explicitly recognize a right to a clean environment or stable climate, and as the Committee on the Elimination of Discrimination against Women notes, '[s]ituations of crisis exacerbate pre-existing gender inequalities and compound the intersecting forms of discrimination against, among others, women living in poverty, indigenous women, women belonging to ethnic, racial, religious and sexual minority groups, women with disabilities, refugee and asylumseeking women, internally displaced, stateless and migrant women, rural women, unmarried women, adolescents and older women, who are often disproportionately affected compared with men or other women. 45 Still, U.N. treaty bodies interpreting those treaties, scholars, and a growing number of courts have recognized that a changing climate can threaten basic rights to life, health, water, food, family life, and more.46 Several recent cases and petitions have built on plaintiffs' early successes in making this connection.47

C. Common law/tort theories

In common law jurisdictions plaintiffs have brought actions alleging a government or private actor that contributes to climate change is committing a tort, causing a nuisance, or (particularly where parties have instead failed to act) behaving negligently. Plaintiffs then argue they are entitled to some form of judicial relief for the damages caused by that behavior. Although these causes of action are generally not available in civil law jurisdictions, some of those jurisdictions recognize comparable statutory causes of action.

The same theories frequently provide a basis for challenges to defendants' failures to adapt, and for actions addressing the impacts of adaptation. These actions seek compensation where defendants were aware of foreseeable climate change impacts but failed to take steps to prepare. Cases of this kind may also address steps to deal with climate risk that themselves harmed plaintiffs. And cases may address corporate failures to amend disclosures in light of foreseeable climate risks, as well as failures to adjust business practices in light of those risks. In each instance, the cases depend on whether the defendant knew or should have known that climate change increased the risk that the defendant's actions would harm others.

Common law cases are rare relative to other sources of climate obligations. As of July 2020, fewer than 50 of the nearly 1,600 cases in the Sabin Center's databases were based on common law climate obligations. To date, no court has awarded a plaintiff damages for climate change harms suffered as a result of a defendant's contribution to climate change. In contrast, the failure to adapt to climate change has driven at least one utility in the U.S. into bankruptcy. Litigation addressing failures to adapt is likely to increase in the coming years, and negligence is a key premise for such suits. As these cases become more frequent, they may become even more common than climate rights cases, though their impact will depend on the scope of remedies courts award.

Because common law jurisdictions allow judges to recognize new causes of action under appropriate circumstances, plaintiffs can seek to have courts recognize novel climate-related theories. In Smith v. Fronterra Co-Operative Group Limited, for example, plaintiff asked the court to recognize an inchoate "duty cognizable at law to cease

contributing to climate change"; the court denied a motion to dismiss the claim.⁴⁸ In Harvard Climate Justice Coalition v. President & Fellows of Harvard College, plaintiff asked the court to recognize a tort of "intentional investment in abnormally dangerous activities." (That case was dismissed for lack of standing.)

Finally, it is important to note that even though the causes of action differ slightly, plaintiffs may have success with comparable claims in civil law jurisdictions. In *Urgenda*, for example, the court recognized that the government owes a duty of care to its citizens under the Dutch code, and that duty was the basis for the *Urgenda* decision discussed above. Plaintiffs in *Milieudefensie et*

al. v. Royal Dutch Shell plc. have brought an action seeking to extend Urgenda's holding to private parties as well as governments, and seeking an order that the same duty of care requires Shell to reduce its emissions by 45 percent of its 2010 levels by 2030. In another case in another context but seeking a similar result, Notre Affaire à Tous v. Total, a group of French non-profits, allege that France's duty of vigilance statute requires the French oil company Total to recognize the climate risks of its business and take action consistent with a goal of keeping global warming at or below 1.5°C. This is the first claim to be made under the statute, which was introduced in 2017, and will be crucial in determining future interpretation and application.

Hybrid Approaches: Duty of Care and Public Trust

Although the sources of substantive climate rights and obligations described in this report are conceptually distinct from one another, several significant climate cases have proceeded under theories that combine elements of common law, constitutional rights, and statutory provisions. In *Urgenda*, the Supreme Court cited a duty of care owed by the government to its citizens. Duties of care generally exist at common law and define the standard of conduct a party must meet to avoid a negligence claim. The duty of care at issue in *Urgenda* was codified in the Dutch Code, however, and the Supreme Court defined

the scope of that duty in reference to Dutch constitutional rights and human rights under the European Convention on Human Rights (ECHR). The public trust approach taken in *Juliana* can similarly be understood as a hybrid, arguing that the common law doctrine is informed by, and enforceable because of, constitutional provisions. In many of the cases seeking to hold governments to their policy commitments, plaintiffs argue that violating statutory mandates to undertake mitigation efforts violates human rights or rights to a clean and healthy environment.⁴⁹

III. Remedies and Targets

The cases discussed in the preceding sections illustrate that parties bringing climate change litigation seek a wide range of remedies. There is substantial variety even among conventional remedies. On one hand, some cases bring damages claims that are relatively modest, tailored claims like the *Lliuya* plaintiff's request for 0.47 percent of the costs of protecting his town from glacial flooding. On the other hand, the U.S. utility Pacific Gas & Electric was sued by a variety of

claimants for, among other reasons, failing to properly manage climate-worsened wildfire risks, and ultimately reached settlements valued at over \$25 billion. Likewise, injunctive remedies can be limited and targeted, like the plaintiff's request for authorization to use rock and concrete shoreline barriers in *Ralph Lauren 57*, but can also be broad and far-reaching, like plaintiffs' request for an order reforming Exxon's corporate governance in *City of Birmingham* and the *Urgenda* plaintiffs' order requiring their national government to implement policy changes on a vast scale.

IV. Attribution Science

Attributing a defendant's emissions to climate change overall ("source attribution") and linking climate change to specific climate change impacts ("impact attribution") plays a major role in many climate cases, including those seeking to compel national governments to take action on climate change and those seeking to hold corporations liable for their contribution to climate change. In Juliana, for example, the plaintiffs submitted over 1,000 pages of expert reports detailing the fundamental science of climate change, its observed and projected impacts, and the ways in which the U.S. government and the fossil fuel industry contributed to the problem. In response, defendants submitted hundreds of pages of their own expert reports contesting the reliability, soundness and validity of the plaintiffs' experts' submissions.

Source attribution has been a key challenge in several cases, and courts have reached varying results. For example, in Dual Gas Pty. Ltd. v. EPA, the Victorian Civil and Administrative Tribunal in Australia noted, "The emission of a few tonnes of GHG from a small factory . . . would not in our view give rise to standing . . . even though it represents an incremental GHG increase."51 In Smith v. Fronterra Co-Operative Group Limited, the court observed "defendants' collective emissions are miniscule in the context of the global greenhouse gas emissions which are causing climate change and it is the global greenhouse gas emissions which are pleaded as being likely to cause damage to Mr Smith. In these circumstances, in my view, reasonable persons in the shoes of the defendants could not have foreseen the damage

claimed by Mr Smith."⁵² In contrast, courts have found emissions associated with projects and programs ranging from individual airport runways to fossil fuel leases to national vehicle emissions standards sufficient. In all of these examples, a robust articulation of how emitters or producers bear responsibility for a share of global climate change may be necessary to sway the courts in favor of the plaintiffs.

Impact attribution is a challenge for parties that must show that a particular extreme weather event was or was not caused by climate change. For example, in In re Upstream Addicks and Barker (Texas) Flood-Control Reservoirs v. United States, plaintiffs sued the government after extensive rainfall during Hurricane Harvey inundated government-controlled reservoirs and caused plaintiffs' properties to flood. Both parties cited climate change to support their arguments: Plaintiffs alleged that the amount of rainfall was unusual, but that the known effects of climate change suggest that the amount of rainfall could have been foreseen. The government argued that the fact of climate change is the reason that extreme rainfall could not have been foreseen. Both parties, thus, run into the question of whether and to what extent a particular weather event can be caused or worsened by climate change. The court ruled that the flooding was foreseeable and that the plaintiffs were entitled to compensation but did not address the parties' discussion of the role of climate change.53

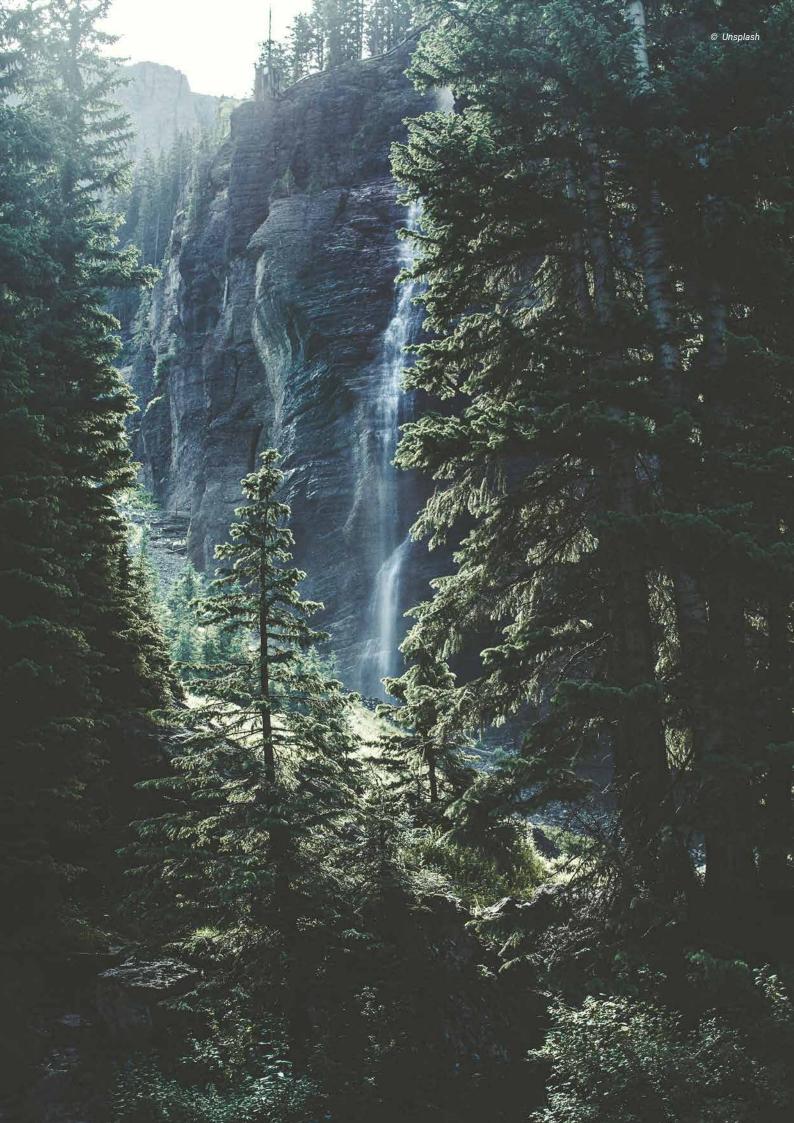
Attribution will continue to play a central role in climate change litigation of all types, and courts will require both plaintiffs and defendants to address these critical questions in a persuasive way.

PART 3 NOTES

- 1 Many of the themes discussed here were analyzed in the 2017 Litigation Report. They remain key legal issues. This report includes an updated discussion of justiciability and sources of climate obligations and adds analyses discussing the implementation of judicial orders and the role of attribution science in climate litigation.
- Margit Cohn, Form, Formula and Constitutional Ethos: The Political Question/justiciability Doctrine in Three Common Law Systems, 59 Am. J. Comp. L. 675, 677 (2011).
- 3 Id. at 677-78.
- 4 See generally Spokeo, Inc. v. Robins, 136 S. Ct. 1540, 1547 (2016).
- 5 See 2017 Litigation Report at 28–29. The key cases are, on one hand, Massachusetts v. EPA, where the U.S. Supreme Court concluded that the State of Massachusetts had standing—relying on the State's status as quasi-sovereign within the federal system—to challenge federal government's failure to regulate GHG emissions from new motor vehicles. 549 U.S. 497, 526 (2007). On the other hand, in Comer v. Murphy Oil USA, the Fifth Circuit Court of Appeals found that landowners harmed by Hurricane Katrina did not have standing to bring a civil conspiracy claim against fossil fuel and chemical companies, because the landowners' injuries were not traceable to the companies' conduct. 585 F.3d 855, 860 (5th Cir. 2009).

- 6 2017 Litigation Report at 28–29. In Urgenda, the foundation was permitted to maintain an action against the government, but the individual plaintiffs were not granted standing separate from that of the organization. In Haughton v. Minister for Planning and Macquarie Generation, a plaintiff could pursue a climate case where the plaintiff had a "special interest" in the alleged harms, and not merely "intellectual or emotional concern. [2011] NSWLEC 217, ¶¶ 101–102.
- 7 Leghari v. Pakistan, (2015) W.P. No. 25501/2015 (Supplemental Decision) at 3.
- State of Himachal Pradesh, M.A. Nos. 389/2014, 1145/2015, 1250/2015, 324/2016 & 325/2016 (Nat'l Green Tribunal).
- 9 Gbemre v. Shell PDC Nigeria Limited, FHC/B/CS/53/05.
- 10 Constitutional Court, Feb. 8, 2016, Decision C-035/16.
- 11 Greenpeace Southeast Asia and Philippine Rural Reconstruction Movement, Petition to the Commission on Human Rights of the Philippines Requesting for Investigation of the Responsibility of the Carbon Majors for Human Rights Violations or Threats of Violations Resulting from the Impacts of Climate Change.
- 12 Nat. Res. Def. Council v. Wheeler, 955 F.3d 68, 76 (D.C. Cir. 2020).
- 13 Id. at 77.
- 14 Id.
- 15 [2020] NZHC 419 at ¶ 62.
- 16 Armando Carvalho and Others v. European Parliament and Council of the European Union, Case T-330/18, ECLI:EU:T:2019:324.
- 17 Save Lamu et al. v. National Environmental Management Authority and Amu Power Co. Ltd., Tribunal Appeal No. Net 196 of 2016 at ¶ 3.
- 18 Juliana v. United States, 217 F. Supp. 3d 1224, 1248 (D. Or. 2016).
- 19 First Amended Complaint for Declaratory and Injunctive Relief, Prayer for Relief ¶ 7, Juliana v. United States, 217 F. Supp. 3d 1224 (D. Or. 2016) (No. 6:15-cv-01517).
- 20 Id. at 1171
- 21 Id. at 1182 (Staton, J. dissenting) (emphasis in original).
- 22 Id. at 1184. (Staton, J. dissenting)
- 23 Urgenda Foundation v. State of the Netherlands, C/09/456689 / HA ZA 13-1396 (English translation).
- 24 Id.
- 25 See 2017 Litigation Report at 30.
- 26 Am. Elec. Power v. Connecticut, 564 U.S. at 415; see also Kivalina, 696 F.3d at 856 (finding that plaintiffs' federal common law claims pertaining to climate change had been displaced by the regulation of greenhouse gas emissions under the Clean Air Act).
- 27 Family Farmers and Greenpeace Germany v. Germany, (2018) 00271/17/R /SP.
- 28 [2017 No. 793 JR] at ¶ 12.
- 29 [2017 No. 793 JR] at ¶ 91. Later the court added that "[i]t appears to me that the sections of the Act under consideration are couched in terms of policy measures and considerations. I accept the submission of the respondent, that even if the Act and the Plan are justiciable, given the wording of each, a considerable margin of discretion is conferred on the Government as to how it should achieve the National Transition Objective. I also accept that it is not part of the function of the court to second-guess the opinion of Government on such issues." Id. at ¶ 97
- 30 Friends of The Irish Environment CLG v. Ireland, [2020] IESC 49, ¶ 8.15 (emphasis added).
- Corte Suprema dé Justicia [C.S.J.] [Supreme Court], abril 5, 2018, M.P.
 L. Villabona, Expediente : 11001-22-03-000-2018-00319-01 (Colomb.).
- 32 See also Dena Adler, U.S. Climate Change Litigation in the Age of Trump: Year Two (2019), http://columbiaclimatelaw.com/files/2019/06/Adler-2019-06-US-Climate-Change-Litigation-in-Age-of-Trump-Year-2-Report.pdf; Sabrina McCormick et al., Strategies In and Outcomes of Climate Change Litigation in the United States, 8 Nature Climate Change 829 (2018); Jessica Wentz, Climate Change and Environmental Impact Assessment, in Decision Making in Envtl. L. vol II 283 (Michael Faure general ed. 2016).

- 33 E.g., Judgment No. 5347/2008 of October 6, 2008, Supreme Court of Spain, Administrative Litigation Division (Section 5) Appeal No. 100/2005 (Spain); Re Emission Quotas: Decision No. 2010-622 DC of Dec. 28, 2010 (France); U.S. Steel Košice v. Commission of the European Communities (Slovakia); Republic of Poland v. Commission of the European Communities (Poland); Republic of Estonia v. Commission of the European Communities; Buzzi Unicem SpA v. Commission of the European Communities (Estonia).
- 34 See Gloucester Resources Limited v. Minister for Planning, [2019] NSWLEC 7 (appealing denial of permit to develop a new open-cut coal mine in New South Wales); Terminals Pty Ltd. v. Greater Geelong City Council, [2005] VCAT 1988 (challenging permitting of a chemical storage facility).
- 35 See Gray v. Minister for Planning [2006] 152 LGERA 258; Xstrata Coal Queensland v Friends of the Earth [2012] QLC 013.
- 36 E.g., Re Australian Conservation Foundation, [2004] 140 LGERA 100 (holding that the assessment panel must consider the impacts of GHG emissions on the environment); Greenpeace v Redbank Power, [1994] 86 LGERA 143, 153–55 (finding that the project should be approved despite climate change impacts).
- 37 Gloucester Resources Limited v. Minister for Planning, [2019] NSWLEC 7 (upholding governments denial of application for new coal mine finding the project was not a "sustainable use" in light of, among others, climate impacts).
- 38 See Klimaschutzgesetz [Climate Protection Act], Bgbl. I Nr. 106, 4 (Nov. 2011); Thomson v. Minister for Climate Change Issues [2017 No. 793 JR], Leghari v. Federation of Pakistan.
- 39 Friends of The Irish Environment CLG v. Ireland, [2020] IESC 49.
- 40 Belgium, Our Children's Trust https://www.ourchildrenstrust.org/ belgium.
- 41 Sheikh Asim Farooq v. Federation of Pakistan, (2018) W.P. No. 192069/2018.
- 42 Joana Setzer & Lisa C. Vanhala, Climate Change Litigation: A Review of Research on Courts and Litigants in Climate Governance 10 Wiley Interdisciplinary Reviews: Climate Change at 13 ("[T]he research has focused primarily on small numbers of high-profile cases concentrated in North America, Europe and Australia.").
- 43 James R. May & Erin Daly, Global Climate Constitutionalism and Justice in the Courts, in Global Climate Change Constitutionalism (Jordi Jaria Manzano & Susana Borràs eds., forthcoming 2020).
- 44 David Boyd, The Constitutional Right to a Healthy Environment, Env't Sci. & Pol'y for Sustainable Dev., July–Aug. 2012.
- 45 See e.g., H.R.C. Gen. Comment No. 36, CCPR/C/GC/36 (Oct. 30, 2018) (recognizing states' obligation to address climate change as it threatens the right to life); Committee on the Elimination of Discrimination against Women (CEDAW), Gen. Recommendation No. 37, CEDAW/C/GC/37 (Mar. 13, 2018).
- 46 See supra notes 232-34.
- 47 See supra Section 2.II.A.
- 48 See supra note 109.
- 49 See infra Section 2.II.C.
- 50 See In re: PG&E Corporation, No. 19-30088, Order Confirming Debtors' and Shareholder Proponents' Joint Chapter 11 Plan of Reorganization Dated June 19, 2020 (Bankr. N.D. Cal. June 20, 2020).
- 51 Dual Gas Pty Ltd. v Env't Protection Authority [2012] VCAT 308, ¶ 134. (Austl.).
- 52 [2020] NZHC 419 at ¶ 82.
- 53 In re Upstream Addicks & Barker (Texas) Flood-Control Reservoirs, 146 Fed. Cl. 219, 256 (2019).



Conclusion

Litigation remains a central feature of ongoing efforts to promote climate change mitigation and adaptation efforts. The number and variety of climate change cases continues to increase, as does the geographical range in which climate litigation takes place. Analyses to date have often overlooked the overwhelming prevalence of cases premised on statutes and policies and favored cases premised on rights-based theories. Yet, statutes and policies are by far the most commonly cited sources of climate obligations; rights-based cases and common law actions make up a comparatively small portion of all climate change cases. Nonetheless, this disparity is likely to continue given the compelling narratives that drive many rights-based and common law climate cases-their emphases on the extraordinary nature of the climate crisis, the sheer inadequacy of government action, alleged malfeasance and negligence by corporate actors, and these cases' potential to result in "game-changing" decisions.

Similarly, analyses to date (including this one) have not fully explored critical questions about the people affected by climate change. Future studies may explore who becomes a plaintiff in a climate change case, why they do, whether the groups most vulnerable to or most affected by climate change have access to adequate legal process, and whether their claims are being adjudicated fairly. Those groups include persons whose rights have

been discriminated against on the basis of age, gender, race, ethnicity, religion, migrant status or other forms of discrimination. Future studies also address whether the remedies that plaintiffs have won or are seeking are adequate to heal the climate harms they are suffering—and if not, what remedies would be?

Once litigants do bring a case, they continue to address many of the same legal issues identified in UNEP's 2017 Litigation Report, including the recurring questions of standing and separation of powers, with decisions from different courts cutting in sometimes conflicting directions. Further, as older cases proceed into later stages of the litigation process, the science of climate change attribution will play a central role in many of these cases. The existing body of scientific literature provides a basis for parties to make sophisticated arguments attributing climate change to specific emitters and attributing harms to climate change, but courts confronting this evidence will break new ground as they reach conclusions about which parties are responsible and the extent of those parties' responsibility.

The growing amount of litigation and its global distribution suggests that litigants, courts, and international tribunals will be presented with many more opportunities to resolve the pressing dangers created by climate change in the coming years.





