

## **Climate Change Litigation** *Insights into the evolving global landscape*



## **Climate Change Litigation** *Insights into the evolving global landscape*

Maryam Golnaraghi, The Geneva Association Joana Setzer, London School of Economics Nigel Brook, Wynne Lawrence, Lucia Williams, Clyde & Co

#### The Geneva Association

The Geneva Association was created in 1973 and is the only global association of insurance companies; our members are insurance and reinsurance Chief Executive Officers (CEOs). Based on rigorous research conducted in collaboration with our members, academic institutions and multilateral organisations, our mission is to identify and investigate key trends that are likely to shape or impact the insurance industry in the future, highlighting what is at stake for the industry; develop recommendations for the industry and for policymakers; provide a platform to our members, policymakers, academics, multilateral and non-governmental organisations to discuss these trends and recommendations; reach out to global opinion leaders and influential organisations to highlight the positive contributions of insurance to better understanding risks and to building resilient and prosperous economies and societies, and thus a more sustainable world.

#### Acknowledgements

The authors would like to extend their gratitude to the Geneva Association Expert Advisory Team on Climate Litigation, which was established under the Climate Change and Emerging Environmental Topics Working Group (CCEET WG) to provide guidance and feedback: Michael Bruch, Arthur Lu, Johanna Scheller (Allianz), Adrian Whitaker (Aviva), Ina Ebert and Julia Schubring-Giese (Munich Re), Jane Mandigo and Martin Weymann (Swiss Re), Randy Murray (Tokio Marine), Philippe Dufort Langlois (Intact Financial), Pierpaolo Marano (Catholic University of the Sacred Heart) and Darren Pain (The Geneva Association). We are grateful to the members of the Geneva Association's CCEET WG for their continued support, guidance and review of this report and extend our special thanks to: Simone Ruiz-Vergote (Allianz), Anthony Zobl, David Buckle, Jennifer Waldner and Edward Barren (AIG), Kei Kato and Masaaki Ngamura (Tokio Marine), Guillaume Ominetti (SCOR), and Mandy Dennison and Laura Willett (Intact Financial) for their detailed review and feedback. Finally, we thank members of The Geneva Association editorial committee for their helpful comments.

Photo credits: Cover page— Billion Photos and olon / Shutterstock.com

Geneva Association publications: Pamela Corn, Director Communications Hannah Dean, Editor and Content Manager Petr Neugebauer, Digital Media Manager

Suggested citation:

The Geneva Association. 2021. *Climate Change Litigation – Insights into the evolving global landscape*. Authors: Maryam Golnaraghi, Joana Setzer, Nigel Brooke, Wynne Lawrence and Lucia Williams. April.

© The Geneva Association, 2021 All rights reserved www.genevaassociation.org

## Contents

1.	Exe	4				
2.	Cor	ntext	8			
3.	Met	thodology and terminology	11			
4.	The	three waves of climate litigation	13			
5.	Cha	aracterising climate litigation cases	18			
	5.1	Motivation	18			
	5.2	Litigants (defendants and claimants)	19			
	5.3	Extent to which the case is about climate change	22			
6.	Driv	vers of climate litigation	24			
	6.1	Physical and transition risks	25			
	6.2	Increasing awareness	25			
	6.3	Climate commitments	25			
	6.4	Availability of funding	25			
	6.5	Evolving standards of care	26			
	6.6	Developments in climate change attribution science	27			
	6.7	Implications of COVID-19	28			
7.	Clin	nate litigation as a global phenomenon	29			
	7.1	Emergence of global databases and platforms	29			
	7.2	Plaintiffs' use of cases	29			
	7.3	Growing networks in the legal community	30			
8.	The	use of arbitration in climate-related disputes	31			
<b>9</b> .	Cor	nclusions	32			
	Ref	erences	33			
	Anr	lex				
	Det	Details of climate litigation cases referenced in this report				

### 1. Executive summary

Turbulence and crises can escalate litigation, as evidenced by the many claims spawned by the 2008 financial crisis and the deluge of disputes brought about by the COVID-19 pandemic. Climate change is a global issue with widespread effects, and related litigation cases are rising around the world. Those who suffer or expect to suffer loss as a result of climate change are already pursuing judicial remedies and looking to recover damages or fund abatement efforts.<sup>1</sup> Others are using litigation as a tool to leverage more ambitious climate policy and actions or to oppose them.

#### Climate-related litigation cases are rising around the world, with some using litigation as a tool to leverage more ambitious climate policy and actions or to oppose them.

According to the International Panel on Climate Change (IPCC),<sup>2</sup> the most significant physical effects of climate change will not materialise for some time, although they could arise sooner and be more catastrophic if we reach one of the planetary 'tipping points'. Although physical risks are already creating loss, it appears that it will be the transition to a net-zero economy that will have the largest impact over the next decade. Failure to implement a well-planned transition could create stranded assets.

The current rise in climate change litigation is taking place against a backdrop of increasing societal awareness and scientific knowledge of climate change, changing requirements for states and corporations triggered by the proliferation of national and international agreements and commitments on climate change, and an evolution in the fields of energy production, transportation and heavy industry, to name a few. To reach the climate change goals set out in the Paris Agreement<sup>3</sup> and pivot away from fossil fuel dependence, policy advisors are outlining the need for dramatic business model transformations in different economic sectors as well as profound changes in everyday life that impact core and essential sectors of the world economy.

There are increasing signs that we have entered a period of transition towards a net-zero economy, with actions gaining momentum within both the public and private sectors. The availability of new technologies, e.g. green, clean and carbon capture and storage (CCS), is being coupled with increasing government willingness to support the shift to a net-zero economy, with some governments

- 2 IPCC 2018.
- 3 United Nations 2015.

<sup>1</sup> Ganguly et al. 2018.

making 'green' investment part of their post-pandemic recovery plans. New technologies are enabling systemwide monitoring, analysis and evaluation of risks for preventive maintainance to strengthen resilience. For the past 30 years, property and casualty (P&C) re/insurers have provided leadership in natural catastrophe (NatCat) risk modelling and pricing; offering innovative risk transfer solutions to strengthen financial resilience to physical climate risk and enable entrepreneurial pathways for new technologies; and incentivising risk reduction and prevention for extreme weather-related events as well as reduction of greenhouse gas (GHG) emissions (e.g. green building insurance). Insurers, investors and corporations are enagaging in various platforms to set targets and facilitate the transition to net-zero business models.<sup>4</sup> Conversations are also taking place through platforms such as the World Economic Forum on 'Mission Possible',<sup>5</sup> the 'great reset'<sup>6</sup> and 'building back better'.<sup>7</sup>

Other important developments are happening in the financial sector. These include growing adoption of the Financial Stability Board's (FSB) Task Force on Climate-Related Financial Disclosures (TCFD) recommendations for assessing and disclosing climate risk and supporting informed decision-making for investing, sustainable finance initiatives to mobilise mainstream finance to invest in the transitioning, and climate risk consideration by financial and insurance regulators and international rating agencies.<sup>8</sup>

However, an orderly transition requires coordination in terms of effort and scale. A disorderly transition could disrupt the global economy. Those who do not successfully navigate it and are left with devalued investments and assets – whether carbon-intensive or carbon-reliant – could potentially face litigation, for example, for causal contribution to climate change, miscommunication or failiure to adapt, or issues related to duty of care and their role in society.<sup>9</sup>

The world is changing rapidly and there is significant uncertainty associated with the transition to a resilient net-zero economy. The Geneva Association (GA),<sup>10</sup> in collaboration with leading legal experts, launched this study to examine the typology, backdrop and drivers of the climate change litigation landscape. It aims to better define the boundaries of this growing global phenomenon, further understanding of its development and impact, and explore the potential risks and opportunities that it entails.

This report provides a cohesive mapping and analysis of the evolving global landscape of climate change litigation and related trends, including the nature of developments since the 1980s in different jurisdictions. Seven key drivers are identified as well as three major factors that describe why climate litigation has become a global phenomenon. These findings will help to guide the scoping of a systematic and holistic approach to monitoring this rapidly evolving and complex landscape as we look ahead.

#### Key findings

1. Climate change is a source of new laws, standards and duties of care. Specifically, the recognition of a duty of care to protect against the harms associated with climate change has given prospective litigants additional choice of grounds and has emboldened the novel use of existing laws.<sup>11</sup>

International commitments of nation states coupled with political responses to climate change have prompted a large volume of new laws and regulations, such as taxes on carbon and restrictions on certain materials or processes. This leads to a higher compliance burden on companies, especially in highemitting sectors. The enforcement of these laws and regulations can give rise to regulatory investigation, sanctions, fines or litigation. At the same time, rising standards of care and lower legal thresholds can make successful claims more likely.

Since the adoption of the Paris Agreement, climate litigation has gained pace, increased in volume and expanded in scope and geographical coverage.

8 The Geneva Association 2021. Authors: Maryam Golnaraghi et al.

<sup>4</sup> Net Zero Asset Owner Alliance, Net Zero Asset Manager Alliance, Climate Action 100+, etc.

<sup>5</sup> https://www.weforum.org/projects/mission-possible-platform

<sup>6</sup> https://www.weforum.org/great-reset/

<sup>7</sup> https://www.wemeanbusinesscoalition.org/build-back-better/

<sup>9</sup> Solana 2019.

<sup>10</sup> The Geneva Association is an international think tank. Its members are CEOs of the largest re/insurance companies (P&C and life), which in total manage USD 17.1 trillion in assets, employ 2.4 million people and protect 1.8 billion people globally.

<sup>11</sup> For example, the decisions related to *Urgenda Foundation v. State of the Netherlands*, where the Dutch Supreme Court found that the Dutch government's inadequate action on climate change violated a duty of care to its citizens, are now being used by plaintiffs in *Milieudefensie v. Royal Dutch Shell*, who seek to extend the same general principle to oblige private actors to help prevent dangerous climate change.

Between 1986 and 2020, 1,727 litigation cases have been documented worldwide. Of these, 1,308 were brought in the U.S. and more than 50% have been brought since 2015.

- 2. Since the adoption of the Paris Agreement, climate litigation has gained pace, increased in volume and expanded in scope and geographical coverage. Between 1986 and 2020, 1,727 litigation cases were documented worldwide: 1,308 in the U.S. and 419 in other jurisdictions and regional and international courts.<sup>12</sup> Importantly, more than half of the total recorded cases have been brought since 2015. Three distinct waves during this period can be indentified:
  - *The first wave* (pre-2007) was predominantly in the U.S. and Australia, with cases primarily against national governments to raise environmental standards.
  - The second wave (2007–2015) involved a surge in climate cases with expansion to European countries and courts, primarily against governments to accelerate climate policy and tortious cases against corporations for their causal contribution to climate change.
  - The third wave (post-2015) is characterised by the expansion of litigation to other jurisdictions, increases in volume and pace, and new types of claims. The most prominent cases involve novel causes of action and the application of established legal duties. These include shareholder actions against corporate leadership or claimants using constitutional and human rights laws to force governments and companies to adopt more ambitious climate policies.

Climate litigation cases can be classified in a variety of ways: by motivation, by the type of litigants, and by the extent to which the case is about climate change.

### 3. Climate litigation cases can be classified in a variety of ways.

- Motivation (private interest cases versus strategic *cases*). While some claims are brought in pursuit of private interest alone, cases are increasingly designed to achieve outcomes that go beyond obtaining results for the litigant bringing the case. These so-called strategic cases seek to advance climate policies, drive behavioural shifts in key actors, and/or create awareness and encourage public debate. Litigants bringing such cases make strategic decisions about who will bring the case, where and when the case will be filed, and what legal remedy will be sought. Strategic climate litigation can also be 'anti-climate'. These cases oppose climate change adaptation and/ or mitigation projects/policies/legislation, for example claims filed by conservationists against renewable energy producers due to threats to wildlife and biodiversity.
- Litigants (defendants and claimants). In past years, cases have been brought by a variety of plaintiffs such as individuals, corporations, non-governmental organisations (NGOs) and governments, primarily against governments and corporations.
- Extent to which the case is about climate change.
  - Climate change is central to the case: It is at the 'core' of the legal argument.
  - Climate change is peripheral to the case: There is explicit reference to climate change, but litigants rely on other grounds to call for climate-related behavioural change.<sup>13</sup>
  - Climate change is incidental to the case: This includes cases that make no specific reference to climate but have practical implications for climate change mitigation or adaptation. Litigation challenging the implementation of new technologies (e.g. CCS) and large-scale wind and solar fields is more likely to have climate as an incidental aspect of the case.<sup>14</sup>

<sup>12</sup> Cases are recorded in two open-access databases: www.climate-laws.org, maintained by the Grantham Institute on Climate Change and the Environment, at the London School of Economics and Political Science; and www.climatecasechart, maintained by the Sabin Center on Climate Change Law, at Columbia Law School. It should be noted that these databases are not exhaustive and don't include all cases, particularly those in which climate change is incidental to the case.

<sup>13</sup> Climate change has started to be considered at least as a peripheral matter in cases which, until recently, would not have mentioned climate change; for example, cases dealing with issues of air pollution, protection of forests, companies' obligations under emissions trading schemes and risks to coastal developments resulting from sea level rise.

<sup>14</sup> Moreover, a case may be filed for the true purpose of addressing climate change, but litigants might opt against framing it as a climate change case for strategic reasons.

4. Governments and corporates are being targeted by a wide range of litigants in many jurisdictions, using myriad sources of legal duties. At the time of writing, the majority of cases have been brought against governments. However, there is clear evidence that the number of lawsuits against corporate entities (particularly carbon majors) is on the rise.

Some cases brought against states seeking increased climate mitigation ambition have been successful, such as *Urgenda Foundation v. State of the Netherlands, Friends of the Irish Environment v. Ireland* and *Ashgar Leghari v. Federation of Pakistan.* To date, the most high-profile liability cases against corporates have been stayed, or are subject to a variety of jurisdictional disputes, such as *People of the State of New York v. ExxonMobil Corporation, Commonwealth v. ExxonMobil Corporation and BP p.l.c. v. Mayor & City Council of Baltimore.* The U.S. Supreme Court has just heard oral arguments on the latter and will determine whether the case can be heard in State or Federal Court. Even before final judgment, these cases have attracted considerable media attention.

To date, the majority of cases have been brought against governments but the number of lawsuits against corporate entities – particularly carbon majors – is on the rise.

- Climate litigation risk is being amplified by seven key factors. 1) Increased physical and transition risk;
   2) increasing awareness of the climate crisis;
   3) stronger climate commitments from governments, corporates and investors; 4) availability of funding for climate litigation; 5) evolving legal duties; 6) developments in climate change attribution science; and 7) the implications of COVID-19 on economic recovery and climate-related actions.
- 6. Climate change-related litigation is a truly global phenomenon, with cross-pollination of ideas, strategies and support across jurisdictions. This is linked to the emergence of more data and accessible global data platforms, plaintiffs using cases from different jurisdictions in novel ways, the rising number of precedent cases and a growing network within the legal community.
- 7. Climate change disputes are also within the purview of alternative dispute resolution mechanisms. This includes both mediation and arbitration of commercial disputes and investor-state arbitration (aka investor-state dispute settlement, ISDS). The fact that these mechanisms are generally confidential means climate change disputes resolved in these ways are difficult to examine and quantify.





## 2. Context

Climate litigation is a fast-evolving field, reflecting the rapidly changing environment from which it arises.<sup>15</sup> It is challenging for those not steeped in the subject to keep pace with the growing list of cases brought before the courts in different jurisdictions around the world. Climate litigation cases take many forms, for example, challenges to local planning law, shareholder actions against corporate leadership and constitutional claims seeking to force national- and local-level public policy changes. What is certain is that the pace of climate litigation is set to increase.<sup>16</sup>

#### Although physical risks are already creating turbulence, it is the transition to a net-zero economy that looks to have the largest impact in the coming years.

Although physical risks are already creating turbulence, it is the transition to a net-zero economy that looks set to have the largest impact in the coming years. Transition risks are difficult to predict in view of inherent uncertainties related to the interconnected nature of the world economy, the patchwork of public policy, regulatory and financial environments, technological innovation and uncoordinated global politics and government responses. The transition to a net-zero economy and ensuing abandonment of carbon-intensive methods of production and resources have the potential to create stranded assets.

To reach the climate change goals set out in the Paris Agreement<sup>17</sup> and pivot away from fossil fuel dependence, profound changes are needed in everyday life as well as in business models and supply chains in key sectors of the world economy. At the same time, major technological shifts are lowering the costs of transitioning to a net-zero economy. Renewable energy sources such as solar and wind have consistently beaten predictions on cost and penetration.<sup>18</sup> The price of battery storage for renewable power is on a steep downward trend, and rapid advancements in energy density have enabed longer-lasting and adaptable battery storage for electric vehicles and home use.<sup>19</sup> Larger storage capacities coupled with cheaper renewable power could permit cyclical and seasonal power storage, eliminating the issue of intermittency. There is also progress in heavy industry, perhaps the most challenging to decarbonise, such as electric arc steelmaking and improvements in the energy efficiency of cement production.<sup>20</sup>

19 IRENA 2017; Bloch et al. 2020; TPI 2020a.

<sup>15</sup> Setzer and Vanhala 2019; Peel and Osokfsky 2020.

<sup>16</sup> Setzer and Byrnes 2020.

<sup>17</sup> United Nations 2015.

<sup>18</sup> IRENA 2020; BEIS 2020.

<sup>20</sup> Sung et al. 2020; TPI 2020b.

The growing availability of new technologies is being accompanied by the increasing willingness of governments to support the shift to a net-zero economy, with some governments even making 'green' investment part of their recovery plans following the COVID-19 pandemic.<sup>21</sup> New technologies are also allowing for system-wide monitoring, analysis and evaluation of risks for preventive maintainance to strengthen resilience.

TCFD recommendations have highlighted the need for assessing and disclosing decision-relevant information on climate risks and opportunities for informed decision-making and investing. The recommendations are increasingly being adopted by companies in various sectors.<sup>22</sup>

Central banks and financial and insurance regulators are calling for a better understanding of climate risk in the financial sector within their own jurisdictions and collectively through platforms such as the Network for Greening the Financial System (NGFS) and the International Association of Insurance Supervisors (IAIS)/Sustainable Insurance Forum (SIF).<sup>23</sup> Institutional investors' initiatives, such as Climate Action 100+ and the Net-Zero Asset Owner Alliance,<sup>24</sup> are pushing investee companies to account for and manage climate risk following the recommendations of the TCFD. The UN Principles for Responsible Investment (PRI) urge decisionmakers to 'act now' to map a transition pathway.

The insurance industry is leveraging its experience, as leaders in NatCat risk modelling and pricing and in protecting customers against these risks for over 30 years, to support the transition to a resilient net-zero economy. The insurance industry has provided leadership in NatCat risk modelling and pricing and has been protecting customers against these risks for over 30 years. By leveraging this experience and engaging in the above-mentioned initiatives, the industry is now actively supporting the transition to a resilient net-zero economy.<sup>25,26</sup> In 2020, the industry-led GA Task Force on Climate Change Risk Assessment for the Insurance Industry was established to rethink, advance and drive innovation in the development of meaningful and decision-useful methodologies for forward-looking climate risk assessment and scenario analysis to support risk-informed transition.<sup>27</sup>

A disorderly transition would destablise the global economy. Those who do not successfully navigate it and are left with devalued investments and assets could potentially face litigation.<sup>28</sup> Boards and other corporate decision makers who do not take climate risk seriously risk being blindsided.<sup>29</sup>

As the transition takes hold and evidence of climate change mounts, the legal environment is changing and liability risk is likely to evolve too. In the short-term, litigation is likely to arise from misjudging the transition. Loss of value in companies can lead to regulatory sanctions or shareholder action against directors and officers. Already, plaintiffs are taking fiduciaries and decision-makers to court, citing developing standards of care.<sup>30</sup> Complaints have been brought against professionals, such as auditors, for failing to integrate climate change into corporate disclosures. Future litigation may therefore come as a direct consequence of failing to take climate change and the transition seriously enough or into account soon enough.

- 27 The Geneva Association 2021.
- 28 Franta 2017.
- 29 Solana 2019
- 30 Barker 2018; Solana 2019.

<sup>21</sup> See, for example, European Commission 2020; U.K. Government 2020.

<sup>22</sup> TCFD 2017, 2018, 2019; The Geneva Association 2021.

<sup>23</sup> NGFS 2020a-d; IAIS/SIF 2019, 2020.

<sup>24</sup> The UN-convened Net-Zero Asset Owner Alliance is an international group of institutional investors delivering on a commitment to transition their investment portfolios to net-zero GHG emissions by 2050. https://www.unepfi.org/net-zero-alliance/

<sup>25</sup> Insurance companies are also providing knowledge of preventive measures and innovative risk transfer solutions to strengthen socio-economic resilience to climate change, incentivise reduction in GHG emissions and promote entrepreneurial pathways for clean technologies. Insurers are also evaluating investment portfolio strategies that increasingly integrate climate change considerations.

<sup>26</sup> The Geneva Association 2018a. Author: Maryam Golnaraghi; The Geneva Association 2018b. Authors: Maryam Golnaraghi et al.; The Geneva Association 2019. Author: Maryam Golnaraghi.



The TCFD considers litigation or legal risk a transition risk, linked to 'the increase in climate-related litigation claims being brought before the courts by property owners, municipalities, states, insurers, shareholders, and public interest organizations for reasons such as failure of organizations to mitigate impacts of climate change, to adapt to climate change, and the insufficiency of disclosure around material financial risks'.<sup>31</sup> The TCFD indicated that litigation risk is likely to increase as the value of damage arising from climate change grows. Building on the findings of the TCFD, the NGFS has already started identifying the risk associated with emerging legal cases related to climate change for governments, firms and investors ('liability risk') as a subset of physical and transition risks, the two main drivers of financial impact.<sup>32</sup> This report examines the typology, backdrop and drivers of climate change disputes with the aim of helping to map the boundaries of this growing global phenomenon, understanding its development and impact, as well as exploring the potential risks and opportunities that it entails.

Section 3 describes the methodology and definitions used. In section 4, the three waves of climate litigation since the 1980s are examined, and section 5 details different ways to characterise climate litigation cases. Section 6 outlines seven drivers that are amplifying climate litigation and, in section 7, reasons behind its emergence as a truly global phenomenon are explored. The scope of climate arbitration and litigation are discussed in section 8 and section 9 provides a summary of the findings.

<sup>31</sup> TCFD 2017.

<sup>32</sup> NGFS 2019.

# C\



## 3. Methodology and terminology

This report is based on a review of the academic literature as well as an additional analysis of litigation cases primarily conducted using two open-access databases – Climate Change Laws of the World (CCLW) and the Climate Case Chart (CCC).<sup>33</sup>

While TCFD definitions for physical and transition climate risks are used (Box 1), a broader definition of climate litigation than that offered by the TCFD is employed to cover a wider scope of cases.<sup>34</sup>

The following definition of climate litigation is used throughout the report to provide a more detailed typology for this evolving field:

Cases brought before administrative, judicial and other investigatory bodies, financial supervisory authorities and ombudsman schemes or in domestic or international courts and organisations, that raise issues of law or facts regarding the science of climate change and climate change mitigation and adaptation efforts.

The two aforementioned databases have adopted a narrower definition of climate litigation.<sup>35</sup> As such, cases that are not captured in these two databases are also included in this report, particularly those that are catagorised as 'incidental' (see section 4). Furthermore, some commercial climate-related disputes, which are increasingly administered by dispute resolution bodies, are described, though they are also not included in these databases. A number of climate litigation cases are referenced to illustrate the findings (see the Annex for more details).

34 The definition draws upon those used by Burger et al. (2017) and Markell and Ruhl (2012).

<sup>33</sup> The CCLW database is maintained by the Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Science (LSE). It can be accessed at: https://climate-laws.org/. The CCC database is maintained by the Sabin Center for Climate Change Law at Columbia Law School and can be accessed at: http://climatecasechart.com/

<sup>35</sup> These two databases focus on judicial cases and targeted adjudications involving climate change presented to administrative entities and a few international bodies.

#### Box 1: TCFD definitions of physical and transition climate change risk



**Physical risk** is defined as the potential negative financial impacts that could arise from direct physical effects, such as the destruction of property and infrastructure, and indirect impacts, such as business or supply chain interruptions, due to the increasing severity and frequency of extreme weather events (acute risks) and long-term shifts in climate patterns (chronic risks) caused by climate change.



**Transition risk** is defined as any risk which could result from the process of transitioning towards a low-carbon economy. The TCFD notes that transitioning to a lower-carbon economy may entail extensive policy, legal, technology and market changes to address mitigation and adaptation requirements related to climate change. Depending on the nature, speed, and focus of these changes, transition risks may pose varying levels of financial and reputational risk to organisations. The definition of legal risk used in this report goes beyond that of the TCFD to include cases that can be directly linked to physical risk.



**Litigation (legal) risk** refers to the increase in climate-related litigation being brought before the courts by property owners, municipalities, states, insurers, shareholders and public interest organisations. Reasons for such litigation include the failure of organisations to mitigate the impacts of climate change, failure to adapt to climate change, and insufficient disclosure around material financial risks.

Source: TCFD<sup>36</sup>

<sup>36</sup> TCFD 2017.



# 4. Waves of climate litigation

Climate litigation has been increasing in volume, scope and geographical spread (Figure 1). Figure 2 illustrates the recorded number of litigation cases brought before domestic or international courts and bodies, by jurisdiction, between 1986 and 2020. The evolution of climate litigation over this timeframe can be divided into three distinct 'waves'.

The first wave of climate litigation occurred predominantly in the U.S. and Australia. The second saw a surge in cases and expansion to Europe. The third wave has spread to Asia, Latin America and Africa and involved an increase in the volume and pace of litigation, as well as changes in the types of claims.

 First wave (pre-2007): The first wave of climate litigation cases occurred predominantly in the U.S. and Australia. Claims were primarily against national governments to raise environmental standards.<sup>37</sup> The earliest examples of climate change litigation were administrative cases brought against public bodies in the U.S. in the 1980s. For example, in 1986 a group of plaintiffs including the City of Los Angeles and the City of New York brought a claim against the U.S. National Highway Traffic Safety Administration, with Ford and General Motors among the intervenors (*City of Los Angeles and City of New York v. U.S. National Highway Traffic Safety Administration*).<sup>38</sup>

<sup>37</sup> Markell and Ruhl 2012.

<sup>38</sup> They challenged the administrative body's decision not to prepare an environmental assessment that considered its fuel economy standards.

#### Figure 1: The three waves of climate litigation (1986 to present)

		1980s	2007	2015	
		Wave	1	Wave 2	
	Jurisdiction	U.S., Aus	tralia	U.S., Australia, Europe	
	Legal framework/ obligations	Statutory challenge under the National Environmental Policy Act	Statutory challenge under the Clean Air Act; torts of nuisance, negligence, trespassing; fraudulent misrepresentation; unjust enrichment	Tort of nuisance; breach of fiduciary duty	
	Characteristics	<ul> <li>Claims against government to raise standards (U.S. Highway Traffic Administration)</li> <li>Claims against directors, trustees and other fiduciaries for failure to consider emissions (Spinelli)</li> </ul>	<ul> <li>Claims against government accelerate climate policy (Massachusetts v. Environmental Protection Agency)</li> <li>Claims against companies for causal contribution to climate change (Comer)</li> </ul>	<ul> <li>Claims against companies for causal contribution to climate change (Kivalina)</li> <li>Claims against directors, trustees and other fiduciaries for failure to adapt investment strategy (Harvard Climate)</li> </ul>	
<b>Climate litigation</b>	Cases	Cities of Los Angeles and New York v. U.S. National Highway Traffic Safety Administration (1990) Friends of the Earth v. Spinelli (filed 2002, settled 2009)	Massachusetts v. Environmental Protection Agency (filed 2003, upheld 2007) Comer v. Murphy Oil USA (filed 2007, dismissed 2010)	Kivalina v. ExxonMobil Corporation et al. (filed 2008, dismissed 2012) Harvard Climate Justice Coalition v. President & Fellows of Harvard College (filed 2014, dismissed 2016)	
	Trends	<ul> <li>Earliest cases were administrative cases brought against public bodies in the U.S. (U.S. Highway Traffic Administration)</li> </ul>	<ul> <li>More cases spurred by Kyoto Protocol and increased public interest in climate change</li> <li>Massachusetts v. Environmental Protection Agency: vindicated ability of U.S. states and cities to hold federal government to account</li> </ul>	<ul> <li>Failure of Copenhagen Accords 2009 reignites interest in climate litigation as a 'gap-filler'</li> <li>Tortious claims against corporations begin to take off (Kivalina)</li> </ul>	
			They fail due to jurisdiction (Com First case addressing potential c indemnify an energy company First case filed by insure	e climate litigation against corporates. n, standing, causation challenges er, Kivalina) obligation of an insurance company to y in a climate case (AES v. Steadfast). ers against local governments dapt to climate risks	
Source: The Geneva	a Association	1980s	2007	2015	

# C\

		Wave 3			
	U.S., Australia, Europe, South Asia, Latin America, Southeast Asia				
fid cla	rt of nuisance; breach of uciary duty; securities fraud ss action; duty of care/human hts; constitutional claims	U.S. public trust doctrine; securities fraud class action; torts of nuisance, negligence, trespassing or product liability	Torts of nuisance and negligence; duty of care/human rights; breach of fiduciary duty; statutory challenge under the Climate Action Act (Ireland) and Planning Act (U.K.)		
•	Claims against companies for causal contribution to climate change (Lliuya) Claims against directors, trustees and other fiduciaries for failure to disclose transition risks (Ramirez) Duty of care/human rights (Greenpeace Southeast Asia) Claims to accelerate climate policy (Urgenda, Leghari)	<ul> <li>Claims against companies for causal contribution to climate change (U.S. cities and states; Lliuya)</li> <li>Claims against directors, trustees and other fiduciaries for failure to consider emissions (Enea), failure to adapt investment strategy (Peabody), failure to disclose transition risks (Abrahams)</li> </ul>	<ul> <li>Claims against companies for causal contribution to climate change (Smith)</li> <li>Claims against directors, trustees and other fiduciaries for failure to consider emissions (Plan B Earth), failure to disclose transition risks (O'Donnell, <i>Massachusetts v. Exxon</i>, <i>New York v. Exxon</i>), failure to adapt investment strategy (McVeigh) and greenwashing (complaint against BP)</li> <li>Duty of care/human rights (Milieudefensie, Notre Affaire)</li> <li>Claims to accelerate climate policy (Friends of the Irish Environment)</li> </ul>		
Ir	Urgenda Foundation v. State of the Netherlands (filed 2013, granted 2015, upheld 2020) Ashgar Leghari v. Federation of Pakistan (filed 2015, granted 2015) nre Greenpeace Southeast Asia and Others *non-judicial (filed 2015, ongoing) Saul Luciano Lliuya v. RWE (filed 2015, ongoing) Ramirez v. ExxonMobil (filed 2016, ongoing)	Lynn v. Peabody Energy Corp (filed 2015, dismissed 2017) Cities & States in the U.S. v. Carbon Majors (various, from 2017, ongoing) Abrahams v. Commonwealth Bank of Australia (filed 2017, withdrawn) ClientEarth v. Enea (filed 2018, granted 2019) McVeigh v. Retail Employees Superannuation Pty Limited (filed 2018, settled 2020)	New York v. ExxonMobil (filed 2018, dismissed 2019) Massachusetts v. ExxonMobil (filed 2019, ongoing) Milieudefensie et al. v. Royal Dutch Shell plc (filed 2019, ongoing) ClientEarth complaint against BP in violation of OECD (2019, concluded 2020) Friends of the Irish Environment v. Ireland (filed 2017, upheld 2020) Plan B Earth v. Secretary of State for Transport (U.K.) (filed 2018, ongoing) Smith v. Fronterra Co-Operative Group Limited (filed & decided 2020) O'Donnell v. Commonwealth (filed 2020, ongoing) Notre Affaire à Tous and Others v. Total (filed 2020, ongoing)		
•	More cases spurred by the Paris Agreement 2015, consolidation of IPCC research, development of climate attribution science, Heede's Carbon Major study Urgenda: first decision by any court in the world ordering states to limit GHG emissions Proliferation of litigation to Global South Beginning of securities fraud class action claims	• First complaints related to greenwashing ( <i>U.S. states v. Carbon</i> <i>Majors</i> , ClientEarth complaint against BP)	<ul> <li>New trend of using Paris and Human Rights duties as bases for claims against corporates (Milieudefensie, Notre Affaire)</li> </ul>		



Figure 2: Geographical distribution of 1,727 cases worldwide (of which 419 are outside the U.S.) (1986–2020)

Source: CCLW and Sabin Center data<sup>39</sup>

39 Setzer and Byrnes 2020.

## C\

- 2. Second wave (2007–2015): The second wave involved a surge in cases and the expansion of climate litigation to European countries, channelled through the European Court of Justice. The entry into force of the Kyoto Protocol and the increase in public interest in climate change partly explain this surge.<sup>40</sup> The failure of the UN climate change conference in Copenhagen in 2009 also reignited interest in climate litigation as a 'gap-filler'.<sup>41</sup> Highlights include:
  - Cases against governments to accelerate climate policy. In the most notable case, *Massachusetts v. Environmental Protection Agency*, the U.S. Supreme Court ordered the Environmental Protection Agency (EPA) to regulate GHG emissions
  - Tortious cases against corporations for their alleged causal contribution to climate change, most notably a lawsuit brought by an Alaskan community in *Native Village of Kivalina v. ExxonMobil.* Private climate litigation against corporates largely failed due to legal hurdles such as jurisdiction, standing and causation challenges.<sup>42</sup>
- **3.** Third wave (post-2015): Climate litigation has expanded during this period in terms of jurisdiction (to countries in Asia, Latin America and Africa), the volume

and pace of litigation and the types of claims.<sup>43</sup> This wave coincided with the signing of the Paris Agreement in 2015 and the first instance ruling in the landmark *Urgenda v. State of the Netherlands* case, where a domestic court ordered a state to reduce emissions by an absolute minimum amount for the first time.

Developments in the scientific literature, including Heede's Carbon Majors research,<sup>44</sup> and in climate attribution science, as well as the consolidation of and consensus around the credibility of IPCC research, have helped accelerate this wave. The number of cases against major emitters has increased, and claims against directors, trustees and fiduciaries for failure to consider emissions have become more prominent during this wave. Cases in this new wave build on past lessons, capturing public interest. Some of these cases will be decided by a new generation of judges trained in environmental law who are more familiar with the rapidly developing field of climate science.<sup>45</sup>

The U.S., Australia, the U.K. and the EU account for 89% of the cases documented in the two open-access databases (Figure 2).

Importantly, Figure 3 demonstrates a significant rise in the volume of these cases after 2007, with more than half brought since 2015.





\_\_\_\_\_

- 40 Kyoto Protocol 1997.
- 41 Peel and Osofsky 2015.
- 42 Ganguly et al. 2018.
- 43 Setzer and Vanhala 2019; Setzer and Benjamin 2020.
- 44 Heede 2014.
- 45 Ganguly et al. 2018.



# 5. Characterising climate litigation cases

In this section, three broad classifications are used to characterise climate litigation cases (Figure 4).

#### Figure 4: Characterising climate litigation cases



Source: The Geneva Association and Setzer and Byrnes 2020

#### 5.1 Motivation

#### Claims brought in pursuit of private interests

The term climate litigation includes civil and administrative procedures brought in the pursuit of private interests, which might not involve activist intent, such as litigation seeking to uphold planning approvals or to clarify reporting requirements under an emissions trading system.<sup>46</sup>

<sup>46</sup> Bouwer 2018.

Strategic cases aim to advance climate policies, drive behavioural shifts in key actors, and/or create awareness and encourage public debate.

#### Strategic cases

Some cases are designed to reach outcomes that go beyond obtaining results for the litigant bringing the case. These cases seek to advance climate policies, drive behavioural shifts in key actors, and/or create awareness and encourage public debate. Litigants bringing such cases make strategic decisions about who will bring the case, where and when the case will be filed, and what legal remedy will be sought.<sup>47</sup> These cases are sometimes referred to as 'strategic litigation'. This category is not mutually exclusive of other types of climate case; there is cross-pollination of ideas between different types of cases and a wide range of legal arguments adopted in different claims.

Data collection and research on climate litigation has overwhelmingly focused on cases supporting, rather than opposing, climate action. See Table 1 for examples of strategic climate litigation cases against governments and corporations that support climate action. However, climate litigation can also be 'anti-climate' and oppose climate change adaptation and/or mitigation policies/ legislation/projects. 'Anti-climate' cases highlight the complex issues associated with sharing the burden of the transition away from fossil fuels and of coping with a changing climate (Box 2).

#### 5.2 Litigants (defendants and claimants)

Cases have been brought by a variety of plaintiffs such as individuals, corporations, NGOs and even governments. Climate litigation cases have primarily been brought against governments and corporations. Table 1 highlights examples of strategic cases against corporations and governments, segmented by motivation and jurisdiction. Further details on each case are provided in the Annex.

#### Cases against governments

To date, most climate litigation cases have centred on judicial review of public, policy and regulatory action (or inaction) on climate change.<sup>50</sup> An analysis of U.S. case statistics up to 2017 has shown that government entities made up over 80% of defendants in the U.S.<sup>51</sup> Outside of the U.S., almost 75% of cases have been brought against governments, typically by corporations or individuals.<sup>52</sup>

There are a few examples of successful high-profile public lawsuits, where decisions from various countries' Supreme Courts affirmed plaintiffs' claims for increased action on climate change. The most important are *Massachusetts v*. *Environmental Protection Agency, Leghari v. Federation of* 

### Box 2: Examples of climate litigation cases that oppose climate change adaptation and/or mitigation policies/legislation/projects

'Anti-climate' litigation includes litigation brought by conservationists against renewable energy producers alleging, for instance, threats to wildlife and biodiversity. There has been a number of claims:

- Against wind farms. Different groups have promoted the use of litigation to challenge the installation of new projects (e.g. Animal Welfare Institute v. Beech Ridge Energy LLC, Backcountry Against Dumps v. Jewell, and Backcountry Against Dumps v. U.S. Bureau of Indian Affairs)<sup>48,49</sup>
- Against solar energy projects in opposition to the potential adverse impacts on the environment

and wildlife (e.g. Newberry Community Services District v. County of San Bernardino and Defenders of Wildlife v. U.S. Fish & Wildlife Service)

- Against biomass subsidies and regulation (e.g. EU Biomass Plaintiffs v. European Union)
- Against new CCS technologies (e.g. *DJL Farm LLC v. EPA*)
- Against legislation/decisions on phasing out coal (RWE v. Kingdom of the Netherlands)

More information about these cases is provided in the Annex.

<sup>47</sup> Bouwer 2018; Setzer and Byrnes 2019, 2020.

<sup>48</sup> https://stopthesethings.com/tag/wind-farm-litigation/

<sup>49</sup> Martin 2017.

<sup>50</sup> In the U.S., most cases are statutory claims seeking to compel or stop governmental agency action. In those cases, courts apply conventional rules for interpreting statues to determine whether and to what extent an agency must consider climate change under existing federal statutes, such as the Clean Air Act.

<sup>51</sup> Eskander et al. (2020), drawing on a dataset compiled by McCormick et al. (2018).

<sup>52</sup> Setzer and Burns 2020.

Pakistan and, more recently, Urgenda Foundation v. State of the Netherlands and Friends of the Irish Environment v. Ireland. As the courts sided with the claimants in these cases, they will accelerate the speed and scope of countries' transitions to a net-zero economy (Box 3).53

#### Government entities make up the majority of defendants in climate litigation cases, both in and outside of the U.S.

There are also a number of high-profile cases against governments being appealed, such as Juliana v. United States (Children's Climate Case).<sup>54</sup> The claimants in these highprofile cases against governments are mostly individuals and NGOs. When looking at the individuals, they generally represent a diverse group who are affected or are likely to be affected in different ways by climate change.

Although focused on national regulation and policy, these cases are also highly relevant to corporations because of their 'knock-on' effects on business. For example, they could:

- Lead to more stringent emissions standards
- Result in the inclusion of GHG emissions limits in regulatory permits issued to new activities/particular sectors
- Accelerate adaptation measures
- Increase expenditure on resilience-building initiatives
- Result in the delay or revocation of permits and licences
- Lead to more stringent procedural obligations for corporates (e.g. on reporting and disclosure).

#### Box 3: The 'Urgenda effect' in the Netherlands and beyond

In 2020, the Dutch government announced measures to curb emissions in compliance with the Supreme Court's Urgenda decision of December 2019, which ordered the government to a 25% reduction by 2020 compared to 1990 (equivalent to reducing emissions by 15 megatonnes in 2020). The government adopted 30 proposals from a plan drawn up by the plaintiff environmental group, Urgenda, in collaboration with 800 civil society groups and other organisations. The measures included a 75% reduction in capacity of the country's three coal-fired power stations, limits on cattle and pig herds, subsidies to homeowners to use double-glazed windows and less concrete for energy efficiency, lower speed limits, and the installation of solar panels on all school rooftops. The costs are estimated at approximately EUR 3 billion.55

Since the first decision in the Urgenda case was issued in 2015, individuals and communities have initiated proceedings against states seeking to achieve similar rulings in Ireland, France, Belgium, Sweden, Switzerland, Germany, the U.S., Canada, Peru and South Korea.

The decision has also arguably motived another type of litigation against the state in the Netherlands, this time challenging the phasing out of coal. In January 2021, German electricity company RWE filed a request for arbitration against the Netherlands at the International Centre for Settlement of Investment Disputes (ICSID) based on the Dutch government's decision, stated in the 2019 Climate Act, to phase out coal for electricity generation. In its request for arbitration, RWE argues that the plant will have to close its doors due to the new legislation and estimates its damages at EUR 1.4 billion. This marks the first investment arbitration against the Netherlands.<sup>56</sup>

Source: The Geneva Association

<sup>53</sup> Peel and Osofsky 2018.

There is a petition for re-hearing which is awaiting decision, but the Supreme Court did reach judgment.
 https://www.theguardian.com/world/2020/apr/24/dutch-officials-reveal-measures-to-cut-emissions-after-court-ruling

<sup>56</sup> https://www.lexology.com/library/detail.aspx?g=2b5ab4b2-2582-4ed2-9c91-908a33e1c684



#### **Cases against corporations**

Strategic climate change litigation is increasingly targeting particular corporations – mostly fossil fuel and cement companies, also referred to as 'carbon majors' (Box 4). Underpinning these claims is the argument that GHG emissions from a small number of corporations have significantly contributed to climate change over time.<sup>57</sup> In the past five years it is possible to observe an overall rise in the number of cases against these major emitters (Figure 5).<sup>58</sup>

Strategic climate change litigation is increasingly targeting 'carbon majors', driven by the argument that GHG emissions from a small number of corporations have significantly contributed to climate change.

#### **Box 4: Carbon Majors**

Richard Heede and the Climate Accountability Institute identified major corporations' historical contributions to GHG emissions. Heede attributed 63% of the carbon dioxide and methane emitted between 1751 and 2010 to a mere 90 entities, which he defined as the 'carbon majors'.<sup>59</sup> Out of these, 50 are investor-owned companies, 31 are stateowned companies and the remining nine are government-run. Most cases seeking to establish corporate liability for causing climate change have relied on this work.

Source: The Geneva Association



#### Figure 5: Cases against carbon majors between 2005 and 2020 (U.S. and the rest of the world)<sup>60</sup>

57 Heede 2014.

58 Setzer 2020.

59 Heede 2014.

- 60 The cases in this figure are those brought againt the list of carbon major companies compiled by Heede (see section 5.2). Cases brought against other oil companies not included in Heede's list are not included in this count, for example, *City of Charleston v. Brabham Oil Co., Adorers of the Blood of Christ v. Transcontinental Gas Pipe Line Co., City of Arcata v. Pacific Gas & Electric Co., WildEarth Guardians v. Mountain Coal Co.* and *City & County of Honolulu v. Sunoco LP.*
- 61 Setzer and Byrnes 2020.

#### Table 1: Examples of cases against governments and corporations by motivation and jurisdiction

Target	Jurisdiction	Examples*
Cases against corporates		
Claims against companies for causal contribution to climate change	Germany, Netherlands, France, Philippines, U.S.	Comer v. Murphy Oil USA; Kivalina v. ExxonMobil Corporation et al. (which in turn gave rise to an insurance coverage dispute, AES v. Steadfast); Luciano Lliuya v. RWE AG; Pacific Coast Federation of Fishermen's Associations, Inc. v. Chevron Corp. et al.
Claims against companies, fund managers and/or their fiduciaries for miscommunication or mismanagement of climate risk	Australia, Canada, Poland, U.S., U.K.	<ul> <li>Abrahams v. Commonwealth Bank of Australia (2017) VID879/2017; ClientEarth complaint against BP in respect of violations of the OECD Guidelines; Commonwealth v. Exxon Mobil Corp; Harvard Climate Justice Coalition and others v. Harvard Corporation and others; McVeigh v. Retail Employees Superannuation Trust; ClientEarth v. Enea; O'Donnell v. Commonwealth; People of the State of New York v. Exxon Mobil Corporation; BP p.l.c. v. Mayor &amp; City Council of Baltimore</li> </ul>
Claims against companies, challenging their role in society (duty of care/human rights cases)	Netherlands, Philippines	Milieudefensie et al. v. Royal Dutch Shell plc; Notre Affaire à Tous and Others v. Total
Cases against governments, with	th implications for corp	orates
Claims against governments (and utilities) for failure to adapt to climate risks	Pakistan, U.S.	Illinois Farmers Insurance Co. v. Metropolitan Water Reclamation District of Greater Chicago; Leghari v. Pakistan
Litigation to force review of high-emission projects	Australia, South Africa, U.K.	Gloucester Resources Limited v. Minister for Planning; Plan B Earth     and Others v. Secretary of State for Transport
Litigation to accelerate climate policy	Belgium, Colombia, EU, India, Ireland, Netherlands, Norway, New Zealand, Pakistan, Peru, Switzerland, U.S.	• Massachusetts v. Environmental Protection Agency; Pandey v. India; Urgenda Foundation v. State of the Netherlands; Friends of the Irish Environment v. Ireland; Juliana v. United States; VZW Klimaatzaak v. Kingdom of Belgium & Other; Leghari v. Pakistan

(\*) A description of these cases is given in the Annex.

Source: The Geneva Association

## 5.3 Extent to which the case is about climate change

Climate cases can also be classified depending on whether climate change is a *central, peripheral* or *incidental* issue in the case.<sup>62</sup>

#### Central

These are cases where climate change is at the 'centre' of the legal argument. These cases are important as they bring the debate about compensation for damages incurred due to climate change, obligations to increase the share of renewables in an energy market and the alignment of national laws and corporate commitments with Paris Agreement targets to the courts and public attention.

Most cases included in Table 1 have climate change at the core of the argument: *Comer v Murphy Oil USA; Kivalina v ExxonMobil Corporation et al.; Luciano Lliuya v. RWE; Pacific Coast Federation of Fishermen's Associations v. Chevron Corp. et al.; Abrahams v Commonwealth Bank of Australia; Commonwealth v. Exxon Mobil Corp; McVeigh. v Retail Employees Superannuation Trust; Milieudefensie et al. v. Royal Dutch Shell plc; Notre Affaire à Tous and Others v. Total; Leghari v. Pakistan; Massachusetts v. Environmental Protection Agency; Pandey v. India; Urgenda Foundation v. State of the Netherlands; and Juliana v. United States.* 

#### Peripheral

These cases make explicit reference to climate change, but litigants rely on other grounds to call for climate-related behavioural change. They deal centrally with issues such as:

62 Setzer and Byrnes 2020.

- Adverse environmental and social impacts of a new development (e.g. *Gloucester Resources Limited v. Minister for Planning*)
- Air pollution (e.g. *ClientEarth v. Polska Grupa Energetyczna*)
- Protection of forests (e.g. Vimal Bhai v. Ministry of Environment and Forests)
- Companies' obligations under emissions trading schemes (e.g. INEOS Köln GmbH v. Bundesrepublik Deutschland)
- Risks to coastal developments from sea level rise (e.g. *Taip v. East Gippsland Shire Council*).

Climate change disclosures and the changing operating conditions arising from climate change-related conditions are becoming increasingly present in litigation against corporates around the world.

Climate change has started to be considered at least as a peripheral matter in cases which, until recently, would not have mentioned it. Examples include complaints dealing with damage suffered as a result of wildfires in California and Australia. In one case, a plaintiff shareholder filed a securities class action lawsuit in the Northern District of California against three executives from a publicly-traded utility (*Vataj v. Johnson*). In addition to the company's statements about its wildfire safety measures, the complaint also specifically quotes the company's statements about how climate change has made wildfires a growing threat.<sup>63</sup> This litigation illustrates that climate change disclosures and the changing operating conditions arising from climate change-related conditions, e.g. wildfires, are becoming increasingly present in litigation against corporates around the world.

#### Incidental

These are cases that make no specific reference to climate change but that can have practical implications for climate change mitigation or adaptation. Generally, these are not included in the climate litigation databases used in this report.<sup>64</sup> Examples of incidental litigation include lawsuits dealing with illegal deforestation or disputes over property rights, which could have an impact on the use of new technologies to support climate change mitigation. *Breyer Group plc and others v. Department of Energy and Climate Change* is an example of a case that makes no explicit reference to climate change, yet it could impact renewable energy use in the U.K. (see the Annex).

Some cases may even be filed for the purpose of addressing climate change, but for strategic reasons the claimants might opt against framing them in such a way. For example, *ClientEarth v. Enea* in Poland was grounded in corporate law and challenged the financial viability of the coal mine at issue; the case did not focus on GHG emissions but rather drew attention to the legal responsibility of companies and their directors to manage climate-related risks.

Cases linked to risks associated with new technologies (e.g. renewable energy and CCS projects) usually emphasise the negative impacts that such technologies might have on the environment and/or on local communities and refer only incidentally to climate change (see Box 3 for examples).

<sup>63</sup> https://www.dandodiary.com/2019/10/articles/climate-change/securities-suit-arising-from-climate-change-caused-conditions-hits-utility/

<sup>64</sup> The two databases focus on cases in which climate change is referred to explicitly.



# 6. Drivers of climate litigation

Seven key factors are driving the rise in and expansion of types of climate litigation cases (Figure 6).





Source: The Geneva Association

#### 6.1 Physical and transition risks

There is a growing consensus that the materialisation of physical and transition climate risks will result in significant financial disruption. According to the IPCC, global economic damages could reach USD 54 trillion at 1.5°C warming above pre-industrial levels, USD 69 trillion at 2°C warming and USD 551 trillion at 3.7°C warming by 2100.<sup>65</sup> The report also notes that 'many impacts, such as loss of human lives, cultural heritage and ecosystem services, are difficult to value and monetize'. The extent of the actual damage caused by physical and transition risks may ultimately exceed current projections.

Against this backdrop, climate litigation is developing quickly. In terms of physical risks, those who allege that they have suffered loss and damage due to extreme weather, wildfires and sea level rise are already seeking redress in the courts. For transition risk, a disorderly transition to a net-zero economy could cause loss of value in assets (e.g. stranded assets) and markets, creating turbulence in financial systems and leading to claims.

Interest in climate litigation is increasing, reflecting a growing perception that courts can be a forum for progressing climate justice and offer a focal point for bringing concerned citizens together.

#### 6.2 Increasing awareness

In the last few years, the climate crisis has become an acute concern of the wider public. 'Extinction Rebellion'<sup>66</sup> and 'Fridays for Future'<sup>67</sup> are salient examples of a new global activist movement bringing climate change to the forefront of public debate. Interest in climate litigation is increasing, reflecting a growing perception that courts can be a forum for progressing climate justice and can offer a focal point for bringing concerned citizens together. For instance, the Urgenda case included 900 co-claimant Dutch citizens. Similarly, more than 60,000 Belgian nationals have

joined as co-plaintiffs in a case brought by the association Klimaatzaak against the Belgian national government (VZW Klimaatzaak v. Kingdom of Belgium & Others).

With these shifts in the social perception of climate risk, the public is increasingly looking to the courts for remedies, particularly where public policy and legislative responses have lagged.

General knowledge around the existence of climaterelated duties of care is also increasing.<sup>68</sup> As will be discussed in the following sections, the recognition by some courts of a duty of care to protect the climate has given prospective litigants additional choice of grounds and has emboldened attempts to address climate harms through novel uses of existing law.

#### 6.3 Climate commitments

International commitments and political responses to climate change have prompted a large volume of new laws and regulations, such as taxes on carbon and restrictions on certain materials or processes. This has led to a higher compliance burden on companies, especially in heavyemitting sectors.

The LSE Grantham Centre has logged over 2,000 climate laws and policies worldwide.<sup>69</sup> All 197 Paris signatories have at least one climate law or policy.<sup>70</sup> Climate law and policymaking is expected to increase alongside the Paris Agreement's 'ratchet mechanism', which requires that countries increase their ambitions over time.<sup>71,72</sup> The enforcement of these laws and regulations can give rise to regulatory investigation, sanctions, fines or litigation. At the same time, rising standards of care and lower legal thresholds may make the success of those claims more likely.

#### 6.4 Availability of funding

A significant development is the increased availability of funding for climate litigation. Three different mechanisms have been identified.

Contingency fee arrangements have been used for bringing climate litigation cases in the U.S., and now in

68 Van Zeben 2015; Barker 2018.

71 For more information about the Paris Agreement see: https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

<sup>65</sup> IPCC 2018.

<sup>66</sup> https://rebellion.global/

<sup>67</sup> https://fridaysforfuture.org/

<sup>69</sup> https://climate-laws.org/cclow

<sup>70</sup> Eskander et al. 2020.

<sup>72</sup> The Geneva Association 2016. Authors: Maryam Golnaraghi et al.

#### Box 5: Contingency fee arrangements in the U.S. and their use in climate litigation cases

Contingency fee arrangements are common in the U.S., and have been identified as a contributing factor to its well-known litigiousness.<sup>74</sup>

Municipalities' use of contingency fee arrangements has been criticised, notably by the U.S. Chamber of Commerce, which sees municipalities' actions against corporates as circumventing state supervision and as ineffectual in obtaining useful redress.<sup>75</sup> The Chamber has recommended ways of curtailing municipalities' lawsuits, for example by preventing municipalities from hiring external attorneys.<sup>76</sup>

Some states, such as Louisiana, are seeking to make it more difficult for municipalities to sue corporates, for instance by requiring the State Attorney General's permission to hire outside counsel under contingency fee arrangements. Other states have put caps on contingency fees, limiting potential funding that could be available for payouts.<sup>77</sup> For example, North Carolina has enacted the Transparency in Private Attorneys Contracting Act (TIPAC), which allows a 25% fee for damages up to USD 10 million and a 5% fee for damages over USD 25 million, with an absolute cap of USD 50 million. Missouri's version of TIPAC has fee tiers between 15% and 2% and an aggregate fee cap of USD 10 million.

There are also signs that the use of contingency fees is gaining ground outside the U.S., for example in Australia and Canada. For instance, Victoria became the first Australian State to permit contingency fees in class actions (though the claimants need to apply to the Supreme Court for permission).<sup>78</sup>

other countries such as Australia and Canada.<sup>73</sup> Many of the claimants in the U.S. cases against oil majors are counties and municipal governments, e.g. County of San Mateo in California and Boulder in Colorado, who rely on these arrangements (Box 5).<sup>74</sup>

Third-party litigation financing has also gained momentum. Large trusts such as the Children's Investment Fund Foundation (CIFF), which has an endowment of USD 5.1 billion and a dedicated climate change funding stream of USD 581.9 million (https://ciff.org/grant-portfolio/), provide funding for strategic climate litigation. CIFF has provided over USD 25 million in funding to ClientEarth (https://ciff.org/grant-portfolio/clientearth-phase-ii/), an activist environmental law firm, for litigation in Europe to secure legal victories that force governments, businesses and investors to comply with obligations to reduce emissions. Another example is the European Climate Fund, which in turn receives funding from a number of charitable bodies and private foundations active in this space (https://europeanclimate.org/funding-grantmaking/). Crowdfunding and personal donations are less traditional sources of funding for climate litigation that have emerged in recent years. For example, environmentalist and journalist George Monbiot and the founder of Ecotricity (a green energy company) Dale Vince raised GBP 44,860 in one day for a judicial review of the U.K.'s Energy National Policy Statement through online crowdfunding. The Pink Floyd guitarist, Dave Gilmour, donated USD 21 million from the auction of his guitar collection to ClientEarth.

#### 6.5 Evolving standards of care

Duty of care is the legal obligation to take reasonable care to avoid causing damage. If a person's actions do not meet this 'standard of care', then the acts may be considered negligent and the resulting damages may be claimed in a lawsuit for negligence.<sup>79</sup> 'Duties of care' or 'standards of care' are important principles in climate litigation. The court in the Urgenda decision found that the state has a 'duty of care' to protect its citizens against the harmful

<sup>73</sup> Under contingency fee arrangements, attorneys represent plaintiffs in exchange for a percentage of the damages awarded or settlement reached.

<sup>74</sup> https://www.ibanet.org/Document/Default.aspx?DocumentUid=ABB6CB12-F091-4F25-818E-4EB48A4DAAC5

<sup>75</sup> https://instituteforlegalreform.com/research/mitigating-municipality-litigation-scope-and-solutions/

<sup>76</sup> Ibid.

<sup>77</sup> Ibid. See also: https://www.drillednews.com/post/as-more-communities-sue-for-climate-damages-state-houses-consider-bills-to-stop-them

<sup>78</sup> Clyde & Co 2020.

<sup>79</sup> Adapted from the definitions of 'duty of care' from the Legal Dictionary (https://legal-dictionary.thefreedictionary.com/duty+of+care) and the Oxford Dictionary of Law (https://www.oxfordreference.com).

## C\

effects of climate change.<sup>80</sup> In *Milieudefensie et al. v. Shell*, plaintiffs hope to extend this same general principle to oblige private actors to help prevent dangerous climate change.<sup>81</sup> In other jurisdictions, general 'standards of care' or primary duties imposed by tort law and trust law require, for example, that trustees invest with skill and diligence.<sup>82</sup>

In 2018, the Commonwealth Climate and Law Initiative (CCLI)<sup>83</sup> brought together legal experts from the U.K., Australia, South Africa and Canada to examine directors' liability and climate risk in the four jurisdictions. It was concluded that prevailing directors' duties regimes were 'all conceptually capable of being applied to governance failures in the identification, assessment, oversight and disclosure of climate-related financial risks', with Australia standing out as a hotspot for potential claims against directors based on climate risk.

Moreover, evidence suggests that standards of care for directors around climate risk or other environmental, social and governance factors are being elevated. As articulated by Australian Senior Counsel Noel Hutley SC in 2019:

"...we are now observers of a profound and accelerating shift in the way that Australian regulators, firms and the public perceive climate risk... these matters elevate the standard of care that will be expected of a reasonable director."<sup>84</sup>

Legislators are also adopting more specific legislation requiring companies to disclose climate-related financial risks to investors. Financial supervisors in the pensions, insurance and banking sectors in the U.K., Europe, Australia and New Zealand are requiring regulated entities to assess, manage and report on the climate risks they face.<sup>85</sup> Failure of an entity's board to ensure it met these requirements, resulting in loss, could lend weight to claims by shareholders. At the same time, both 'activist' and institutional shareholders are pressuring investee companies for greater climate risk management and disclosures (e.g. Climate Action 100+ letters to investee CEOs).<sup>86</sup>

Financial supervisors in the U.K., Europe, Australia and New Zealand require regulated entities to assess, manage and report on the climate risks they face. Failure to meet these requirements could lend weight to claims by shareholders.

As more new cases are brought, courts' jurisprudence could develop and new duties of care may emerge. For example, in a recent New Zealand case (*Smith v. Fronterra*) the court of first instance refused to strike out a claim for a new 'inchoate' tortious duty, which would make corporates responsible to the public for emissions, noting that the issue would need to be explored at trial. The judge stated:

"I am reluctant to conclude that the recognition of a new tortious duty which makes corporates responsible to the public for their emissions, is untenable".

The outcome of this case following trial could give rise to a new legal duty in New Zealand.

## 6.6 Developments in climate change attribution science

Ongoing advancements in attribution science have been important for the development of climate litigation involving the world's largest GHG-emitting companies. Attribution science is a field of research that applies counterfactuals to identify the extent to which human

<sup>80</sup> Van Zeben 2015; Minnerop 2020.

<sup>81</sup> Recognition of a corporate duty of care is what this ongoing case is trying to achieve.

<sup>82</sup> Richardson 2017; Barker 2018.

<sup>83</sup> https://ccli.ouce.ox.ac.uk/publications/

<sup>84</sup> https://tinyurl.com/y6wh7rem

<sup>85</sup> U.K. Prudential Regulation Authority 2015; The Pensions Regulator 2020; Jones 2020; Solana 2020.

<sup>86</sup> In September 2020 the Climate Action 100+ Steering Committee wrote to 161 CEOs and Chairs of the Board of the world's largest GHG emitting companies, calling on the businesses to put net-zero business strategies in place and define targets to support delivery. https://www.ceres.org/ news-center/press-releases/climate-action-100-calls-net-zero-business-strategies-sets-out-benchmark

influence is associated with specific weather- or climaterelated events becoming more likely or more severe.<sup>87</sup>

GHG emissions from human activity have been regarded as an explanatory variable of climate change, causing a considerable array of impacts such as changes in temperature or rain precipitation;<sup>88</sup> melting of glaciers<sup>89</sup> and sea level rise; and extreme weather events such as heatwaves, floods,<sup>90</sup> droughts,<sup>91</sup> and storms.<sup>92</sup> Alongside these developments, legal scholars, practitioners and climate scientists began to explore how attribution science could be integrated into climate litigation.<sup>93</sup>

Central to this debate are findings that human influence has an impact on the natural occurrence of extreme weather events.<sup>94</sup> For this reason, attribution statements are typically expressed in probabilistic terms. However, science and law take distinct approaches to cause and effect, and what scientists might seek to demonstrate in scientific terms is likely to differ from the standard of proof required from litigants to instruct a legal case.<sup>95</sup>

COVID-19 and the subsequent economic downturn may lead to a decrease in new case filings and the pace of the determination of ongoing litigation as attention in society shifts to more immediate health and financial matters.

#### 6.7 Implications of COVID-19

The COVID-19 pandemic and the subsequent economic downturn may have various impacts on climate litigation. On the one hand, it is possible there will be a decrease in new case filings and a slower pace in the determination of ongoing litigation, as attention in society shifts to more immediate health and financial matters. On the other hand, litigants could be motivated to find new grounds for bringing cases, arguing that economic recovery packages should focus on net-zero initiatives and that factors that contribute to climate change, like reduction in biodiversity, deforestation and rapid excessive urbanisation, may also have increased the risk of diseases such as COVID-19 (and SARS and MERS before it) spreading from animals to humans.<sup>96</sup>

There is also growing concern about the COVID-19 crisis being used to roll back environmental regulations, potentially causing an increase in emissions in both the short and long term. For instance, there are reports of environmental assessment standards for high-emitting developments being relaxed in India<sup>97</sup> and reduced law enforcement to combat deforestation in Brazil,<sup>98</sup> leading to adverse impacts on rural communities and Indigenous peoples.

Another possible source of climate litigation could be challenges to government bailouts of the oil, airline and car industries. One recent example is a lawsuit brought by Greenpeace against the Dutch government to compel them to discontinue their bailout of the airline KLM. The claimants argue that the government has acted unconstitutionally due to their failure to 'make strict agreements for KLM to reduce pollution'.

Lastly, COVID-19's recessionary impact on certain highemitting sectors coupled with the 'green' recovery plans of several governments may have accelerated the transition to a net-zero economy. This in itself could give rise to increased litigation risk (e.g. 'failure to adapt' or transition risk-based claims).

However, litigants could also argue that economic recovery packages should focus on net-zero initiatives and that factors that contribute to climate change may increase the risk of diseases spreading from animals to humans.

- 88 Hegerl et al. 2006; Harrington and Otto 2018.
- 89 Stuart-Smith et al. 2021.
- 90 Schaller et al. 2016.
- 91 Cowan et al. 2020.
- 92 Van Oldenborgh et al. 2017.
- Burger et al. 2020; Marjanac and Patton 2018; Minnerop and Otto 2020.
- 94 Stuart-Smith et al. (in review).
- 95 Marjanac and Patton 2018.
- 96 IPBES 2020; Tollefson 2020.
- 97 Chandrashekhar 2020.
- 98 Philipps 2020.

<sup>87</sup> Stuart-Smith et al. (in review).



# 7. Climate litigation as a global phenomenon

The effects of climate change are global and related litigation has also become a global phenomenon. This can be attributed to three key factors.

Three key factors have led to the rise of climate litigation as a global phenomenon: the emergence of global databases, novel ways of using cases from different jurisdictions, and growing networks in the legal community.

#### 7.1 Emergence of global databases and platforms

Global climate litigation databases are emerging and data collection is gaining pace, enhancing the accessibility and cross-referencing of judgements. The online availability of cases and decisions (e.g. in the databases used in this report) as well as reporting on climate change litigation in international news outlets mean that prospective litigants can easily research cases in other jurisdictions.

#### 7.2 Plaintiffs' use of cases

Claimants are deploying the concepts of liability in innovative ways, using case precedents from other jurisdictions or devising novel applications of existing laws. For instance, successful cases like Urgenda have inspired and been referred to in pleadings in other jurisdictions, in both administrative cases (e.g. *Pandey v. India*) and in cases against corporates (e.g. *Notre Affaire a Tous v. Total* in France). In the Netherlands, a corporate case brought by environmental groups against Royal Dutch Shell builds on the Urgenda precedent, seeking a corporate reduction in emissions in line with the Paris Agreement and human rights obligations (Milieudefensie). In the U.S., cases against oil majors are being brought by municipalities in many different state jurisdictions using similar legal arguments for pleadings, seeking funds to address or prevent the impacts of climate change on communities and infrastructure.

Judges and courts are also referencing cases from other jurisdictions in their judgments. For example, Chief Justice Preston of the New South Wales Land and Environment Court cited Urgenda in his decision in *Gloucester Resources Limited v. Minister for Planning*. It has been suggested that a move towards a 'transnational' environmental or climate law is underway.<sup>99</sup>

#### 7.3 Growing networks in the legal

#### community

An increasing number of networks in the legal community are forming, with the aim of bringing attention to climate change. A number of law firms are now focused on climate litigation, including Equity Generation Lawyers (the firm behind both *McVeigh v. Retail Employees Superannuation Trust* and *O'Donnell v. Commonwealth* in Australia), ClientEarth, and Plan B and the Good Law Project in the U.K.

Judges are sharing their knowledge and understanding of climate change jurisprudence. Programmes aimed at training the judiciary have been supported by institutions like the Asian Development Bank,<sup>100</sup> while bodies like the Global Judicial Institute on the Environment are aimed specifically at training judges to effectively handle cases concerning the environment. These initiatives build up the knowledge and skills of judges, who will in turn be more confident in handling climate change claims.

Commercial lawyers are collaborating to encourage new private law climate obligations in commercial contracts. Supported by over 140 leading law firms and institutions globally, The Chancery Lane Project has published three editions of a 'playbook' on contract precedents and model laws, which are free to use for lawyers, businesses and policymakers.<sup>101</sup> There is a growing understanding of the ambit of emerging legal duties around climate risk in the legal community worldwide.

99 Peel and Lin 2019.

100 https://www.adb.org/sites/default/files/publication/27654/2010-brief-01-asian-judges.pdf

101 https://chancerylaneproject.org/

## C\



## 8. The use of arbitration in climate-related disputes

Whilst climate change lawsuits brought before national courts may still be the most numerous and certainly most notorious form of climate-related dispute resolution, arbitration and mediation (also known as 'alternative dispute resolution' or ADR) are important means of resolving climate-related disputes.<sup>102</sup> In contrast to the public nature of climate litigation, arbitration is inherently private in that only the disputing parties and tribunals (with few exceptions) can participate in proceedings, access pleadings and evidence, attend hearings and see the final awards. The confidential nature of ADR, commercial disputes, ISDS and state-to-state arbitration means they are difficult to examine and quantify, and they are not included in the climate litigation databases used for this report. This does not, however, take away from their significance.

While climate change lawsuits brought before national courts may still be the most numerous and certainly most notorious form of climate-related dispute resolution, arbitration and mediation are also important means of resolving climate-related disputes.

The impacts of increased physical risks from climate change could be more pronounced for the asset side of life insurance portfolios, depending on the extent to which they are invested in physical assets, such as real estate, in geographicallyimpacted areas. However, such losses may be tempered by the underlying asset's insurance coverage.

Arbitration will also likely be relevant to climate change disputes involving states. In transitioning to a net-zero economy, states will need to limit fossil fuel companies' exploration and extraction activities, which may involve placing moratoria on new extraction and exploration permits, revoking existing permits or prohibiting the construction of downstream fossil fuel infrastructure like oil/gas pipelines or coal power plants. These have all been used as grounds for ISDS claims (e.g. in the permit process for the XL Pipeline), which could continue going forward.

<sup>102</sup> https://www.nortonrosefulbright.com/en/knowledge/publications/cf5bb18c/climate-relateddisputes---adaptation-and-innovation



## 9. Conclusions

This report has demonstrated the highly complex landscape of climate litigation and provided evidence that it is evolving very rapidly. We have employed a wider definition of climate litigation than that used by the TCFD and have provided a more detailed typology and analysis of the global landscape, with the aim of helping governments, corporations and the financial and insurance sectors to grasp the boundaries of this growing phenomenon. This will enable more holistic and systematic monitoring of the evolution of this field, as well as underpinning drivers, as we look ahead.

The three 'waves' of climate change litigation presented and discussed in this report show that cases have progressed, with plaintiffs inching closer to success or even achieving results in their attempts to push states to be more ambitious in addressing climate change (e.g. the Urgenda case) or hold corporations to account for failing to disclose or adequately address climate change risk (e.g. *McVeigh v. Retail Employees Superannuation Trust*).

The deployment of green and smart infrastructure systems at scale or of untested new technologies may drive change in this space if the risks are not adequately assessed, understood and mitigated.

In a rapidly changing and uncertain world, we trust that this report will offer some foresight into the complex and evolving landscape of climate litigation as we look ahead. The detailed typology, key drivers and global characterisitics of climate change disputes described herein will help to provide more clarity on the contours of this growing phenomenon, its impact and development, and the potential risks and opportunities that it entails. This will allow for the design of forward-looking scenarios for climate risk assessment, in line with the recommendations of the TCFD.

However, it is important to note that this field will continue to evolve and other drivers of climate litigation may emerge as the world transitions to a net-zero economy. The deployment of green and smart infrastructure systems at scale or of new and untested technologies that disrupt established business models, for example, may drive change in this space if the risks are not adequately assessed, understood and mitigated.

# C\

### References

Barbier, E.B. 2020. Greening the Post-pandemic Recovery in the G20. *Environmental and Resource Economics* 76: 685–703. https://doi.org/10.1007/s10640-020-00437-w

Bouwer, K. 2018. The Unsexy Future of Climate Change Litigation. *Journal of Environmental Law* 30 (3): 483–506. https://doi.org/10.1093/jel/eqy017

Burger, M., R. Horton, and J. Wentz. 2020. The Law and Science of Climate Change Attribution. *Columbia Journal of Environmental Law* 45 (1). https://doi.org/10.7916/cjel.v45i1.4730.

CCLI. 2018. *Directors' Liability and Climate Risk: Australia - Country Paper*. https:// www.smithschool.ox.ac.uk/research/sustainable-finance/publications/CCLI-Australia-Paper-Final.pdf

Chandrashekhar, V. India's Push to Relax Environmental Assessment Rules Amid Pandemic Draws Criticism. *Science*. 7 May 2020. https://www.sciencemag. org/news/2020/05/india-s-push-relaxenvironmental-assessment-rules-amidpandemic-draws-criticism

Cowan, T., S. Undorf, G.C. Hegerl, L.J. Harrington, and F.E.L. Otto. 2020. Present-day Greenhouse Gases Could Cause More Frequent and Longer Dust Bowl Heatwaves. *Nature Climate Change* 10: 505–510.

Clyde and Co. 2020. *Victoria: First Australian State to Permit Contingency Fees in Class Actions*. https://www.clydeco.com/en/insights/2020/07/victoria-first-australian-state-to-permit-continge

Department for Business, Energy & Industrial Strategy U.K. Government. 2020. *BEIS Electricity Generation Costs*. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/911817/electricity-generation-cost-report-2020.pdf.

Eskander, S., S. Fankhauser and J. Setzer. 2021. Global Lessons from Climate Change Legislation and Litigation. In *Environmental and Energy Policy and the Economy: Volume 2*, ed. M. Kotchen, J.H. Stock and C. Wolfram, 44–82. University of Chicago Press.

European Commission. 2020. *A European Green Deal*. https://ec.europa.eu/info/ strategy/priorities-2019-2024/european-green-deal\_en

Franta, B. 2017. Litigation in the Fossil Fuel Divestment Movement. *Law and Policy* 39 (4): 393–411. https://doi.org/10.1111/lapo.12086

Ganguly, G., J. Setzer, and V. Heyvaert. 2018. If at First You Don't Succeed: Suing Corporations for Climate Change. *Oxford Journal of Legal Studies* 38: 841–868. https://doi.org/10.1093/ojls/gqy029 Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science. 2019. *Global Trends in Climate Change Litigation:* 2019 Snapshot. http://www.lse.ac.uk/granthaminstitute/ wp-content/uploads/2019/07/GRI\_Global-trends-inclimate-change-litigation-2019-snapshot-2.pdf

Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science. 2020. *Global Trends in Climate Change Litigation:* 2020 Snapshot. http://www.lse.ac.uk/granthaminstitute/ wp-content/uploads/2020/07/Global-trends-in-climatechange-litigation\_2020-snapshot.pdf

Harrington, L.J., and F.E.L. Otto. 2018. Adapting Attribution Science to the Climate Extremes of Tomorrow. *Environmental Research Letters* 13: 123006.

Heede, R. 2014. Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010. *Climatic Change* 122 (1–2): 229–241. https://doi.org/10.1007/s10584-013-0986-y

Hegerl, G.C., T.R. Karl, M. Allen, N.L. Bindoff, N. Gillett, D. Karoly, X. Zhang, and F. Zwiers. 2006. Climate Change Detection and Attribution: Beyond Mean Temperature Signals. *Journal of Climate* 19: 5058–5077.

Hepburn, C., B. O'Callaghan, N. Stern, J. Stiglitz, and D. Zenghelis. 2020. Will COVID-19 Fiscal Recovery Packages Accelerate or Retard Progress on Climate Change?' *Smith School Working Paper No. 20-02*. https:// www.smithschool.ox.ac.uk/publications/wpapers/ workingpaper20-02.pdf

IAIS and SIF. 2020. Draft Application Paper on the Supervision of Climate-related Risks in the Insurance Sector. https://www.iaisweb.org/page/consultations/closed-consultations/2021/application-paper-on-the-supervision-of-climate-related-risks-in-the-insurance-sector.

IPBES. 2020. *IPBES Workshop on Biodiversity and Pandemics*. https://ipbes.net/sites/default/ files/2020-11/201104\_IPBES\_Workshop\_on\_Diversity\_ and\_Pandemics\_Executive\_Summary\_Digital\_Version.pdf

IPCC. 2018. Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C Above Pre-industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty. https://www.ipcc.ch/sr15/download/ International Institute for Environment and Development. 2020. *Raising the Cost of Climate Action? Investor-state Dispute Settlement and Compensation for Stranded Fossil Fuel Assets*. https://pubs.iied.org/17660IIED/

IRENA. 2020. *Renewable Power Generation Costs in 2019*. 27–37. https://www.irena.org/-/media/Files/IRENA/ Agency/Publication/2020/Jun/IRENA\_Power\_Generation\_ Costs\_2019.pdf

IRENA. 2017. *Electricity Storage and Renewables: Costs and Markets to 2030*. 70–79. https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2017/Oct/IRENA\_Electricity\_Storage\_Costs\_2017.pdf

Jones, H. Bank of England Says Company Disclosures on Climate Risks will be Mandatory. *Reuters*. 16 October 2020. https://www.reuters.com/article/us-climatechange-boe-markets-idUSKBN2711DZ

Lobel, N., and M. Fermeglia. 2018. Investment Protection and Unburnable Carbon: Competing Commitments in International Investment and Climate Governance. *Diritto del Commercio Internazionale* 4: 945–976. https://ssrn. com/abstract=3372403

Marjanac, S., and L. Patton. 2018. Extreme Weather Event Attribution Science and Climate Change Litigation: An Essential Step in the Causal Chain? *Journal of Energy and Natural Resources Law* 36: 265–298. https://doi.org/10.10 80/02646811.2018.1451020

Markell, D.L., and J.B. Ruhl. 2012. An Empirical Assessment of Climate Change in the Courts: A New Jurisprudence or Business as Usual? *Florida Law Review* 64 (1): 15–86. https://scholarship.law.ufl.edu/cgi/viewcontent. cgi?article=1013&context=flr

McCormick, S., R.L. Glicksman, S.J. Simmens, L. Paddock, D. Kim, and B. Whited. 2018. Strategies in and Outcomes of Climate Change Litigation in the United States. *Nature Climate Change* 8: 829–833.

Martin, S.L. 2017. Wind Farms and NIMBYs: Generating Conflict, Reducing Litigation. *Fordham Environmental Law Review* 20 (3): 427–468. https://core.ac.uk/download/ pdf/144232149.pdf

Minnerop, P. 2020. Integrating the 'Duty of Care' under the European Convention on Human Rights and the Science and Law of Climate Change: the Decision of The Hague Court of Appeal in the Urgenda Case. *Journal of Energy & Natural Resources Law* 37 (2): 149–179. DOI: 10.1080/02646811.2019.1584441



Minnerop, P., and F. Otto. 2020. Climate Change and Causation. Joining Law and Climate Science on the Basis of Formal Logic. *Buffalo Journal of Environmental Law* 27. http://dx.doi.org/10.2139/ssrn.3522519

NGFS. 2019. A Call for Action: Climate Change as a Source of Financial Risk. https://www.ngfs.net/sites/default/files/ medias/ documents/synthese\_ngfs-2019\_-\_17042019\_0.pdf

NGFS. 2020a. *The Macroeconomic and Financial Stability Impacts of Climate Change: Research Priorities*. https:// www.ngfs.net/en/macroeconomic-and-financial-stabilityimpacts-climate-change-research-priorities

NGFS. 2020b. *Guide to Climate Scenario Analysis for Central Banks and Supervisors*. https://www.ngfs.net/ en/guide-climate-scenario-analysis-central-banks-andsupervisors

NGFS. 2020c. Status Report on Financial Institutions' Practices with Respect to Risk Differential between Green, Non-green and Brown Financial Assets and Potential Risk Differential. https://www.ngfs.net/sites/default/files/ medias/documents/ngfs\_status\_report.pdf

NGFS. 2020d. Guide for Supervisors: Integrating Climate-related and Environmental Risks into Prudential Supervision. https://www.ngfs.net/sites/default/files/ medias/documents/ngfs\_guide\_for\_supervisors.pdf

Peel, J., and J. Lin. 2019. Transnational Climate Litigation: The Contribution of the Global South. *American Journal of International Law* 113 (3): 679–726. https://doi. org/10.1017/ajil.2019.48

Peel, J., and H.M. Osofsky. 2015. *Climate Change Litigation Regulatory Pathways to Cleaner Energy*. Cambridge, MA: Cambridge University Press.

Peel, J., and H.M. Osofsky. 2018. A Rights Turn in Climate Change Litigation? *Transnational Environmental Law* 7 (1): 37–67. https://doi.org/10.1017/S2047102517000292

Peel, J. and H.M. Osofsky. 2020. Climate Change Litigation. Annual Review of Law and Social Science 16: 1. https://doi. org/10.1146/annurev-lawsocsci-022420-122936

Phillips, D. Studies Add to Alarm Over Deforestation in Brazil under Bolsonaro. *The Guardian*. 28 May 2020. https://www.theguardian.com/environment/2020/ may/28/studies-add-to-alarm-overdeforestation-inbrazil-under-bolsonaro-covid-19

Richardson, B.J. 2017. Divesting from Climate Change: The Road to Influence. *Law & Policy* 39: 325–348. Doi: 10.1111/ lapo.12081

Rocky Mountain Institute. 2020. *Breakthrough Batteries: Powering the Era of Clean Electrification*. https://rmi. org/wp-content/uploads/2019/10/rmi\_breakthrough\_ batteries.pdf

Schaller, N. et al. 2016. Human Influence on Climate in the 2014 Southern England Winter Floods and their Impacts. *Nature Climate Change* 6: 627–634.

Setzer, J. 2020. Climate Litigation Against "Carbon Majors": Economic Impacts. *Open Global Rights*. https:// www.openglobalrights.org/climate-litigation-againstcarbon-majors-economic-impacts/

Setzer, J., and L. Benjamin. 2020. Litigation v. Legislation: Considerations from Climate Change Litigation in the Global South. *American Journal of International Law – AJIL Unbound* 14. https://www.cambridge.org/core/journals/ american-journal-of-international-law/article/climatechange-litigation-in-the-global-south-filling-in-gaps/3A5 0045D80FCA2B898CDF89D4B391494

Setzer, J., and R. Byrnes. 2020. *Global Trends in Climate Change Litigation: 2020 Snapshot*. https://www.lse.ac.uk/ granthaminstitute/wp-content/uploads/2020/07/Globaltrends-in-climate-change-litigation\_2020-snapshot.pdf.

Setzer, J., and L.C. Vanhala. 2019. Climate Change Litigation: A Review of Research on Courts and Litigants in Climate Governance. *Wiley Interdisciplinary Reviews: Climate Change* 10 (3).

Solana, J. 2020. Climate Change Litigation as Financial Risk. *Green Finance* 2 (4): 344–372. Doi: 10.3934/ GF.2020019

Solana, J. 2019. Climate Litigation in Financial Markets: A Typology. *Transnational Environmental Law* 9 (1): 103–135.

Stuart-Smith, R.F., G.H. Roe, S. Li, and M.P. Allen. 2021. Increased Outburst Flood Hazard from Lake Palcacocha due to Human-induced Glacier Retreat. *Nature Geoscience* 14: 85–90.

Stuart-Smith, R., F. Otto, A. Saad, G. Lisi, P. Minnerop, K. Lauta, K. van Zwieten, and T. Wetzer. Filling the Evidentiary Gap in Climate Litigation. *Nature Climate Change*. (In review).

Sung, Y. et al. 2020. Improvement of Energy Efficiency and Productivity in an Electric Arc Furnace through the Modification of Side-Wall Injector Systems. *Processes* 8: 1202. https://www.mdpi.com/2227-9717/8/10/1202/pdf

TCFD. 2019. *TCFD 2019 Status Report*. https://www.fsb-tcfd.org/publications/tcfd-2019-status-report/

TCFD. 2018. *TCFD: 2018 Status Report*. https://www.fsb-tcfd.org/publications/tcfd-2018-status-report/

TCFD. 2017. Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures and Related Annexes. https://www.fsb-tcfd.org/publications/finalrecommendations-report/

The Geneva Association. 2021. *Climate Change Risk Assessment for the Insurance Industry: A Holistic Decisionmaking Framework and Key Considerations for Both Sides of the Balance Sheet.* Authors: Maryam Golnaraghi et al. February. https://www.genevaassociation.org/sites/ default/files/research-topics-document-type/pdf\_public/ climate\_risk\_web\_final\_250221.pdf

The Geneva Association. 2019. *Investing in Climateresilient Decarbonised Infrastructure to Meet Socioeconomic and Climate Change Goals*. Author: Maryam Golnaraghi. December. https://www.genevaassociation. org/research-topics/climate-change-and-emergingenvironmental-topics/investing-climate-resilient

The Geneva Association. 2018a. *Climate Change and the Insurance Industry: Taking Actions as Risk Managers and Investors*. Author: Maryam Golnaraghi. January. https://www.genevaassociation.org/research-topics/extreme-eventsand-climate-risk/climate-change-and-insurance-industrytaking-action

The Geneva Association. 2018b. *Managing Physical Climate Risk: Leveraging Innovations in Catastrophe Risk Modelling.* Authors: Maryam Golnaraghi et al. November. https://www.genevaassociation.org/research-topics/ extremeevents-and-climate-risk/managing-physicalclimaterisk%E2%80%94leveraging

The Geneva Association. 2016. COP21 Paris Agreement: What Does It Mean for the (Re)insurance Sector. February. https://www.genevaassociation.org/research-topics/ extreme-events-and-climate-risk/cop21-paris-agreementwhat-does-it-mean-reinsurance

Tollefson, J. Why Deforestation and Extinctions Make Pandemics More Likely *Nature*. 7 August 2020. https:// www.nature.com/articles/d41586-020-02341-1

TPI. 2020a. Transition Pathway Initiative: Management Quality and Carbon Performance of Industrials and Materials Companies. https://www.transitionpathwayinitiative.org/ publications/47.pdf?type=Publication.

TPI. 2020b. *Transition Pathway Initiative: Management Quality and Carbon Performance of Energy Companies*. https://www.transitionpathwayinitiative.org/ publications/61.pdf?type=Publication. The Pensions Regulator. 2020. *TPR Statement on Climate Risk Guide Consultation*. https://www. thepensionsregulator.gov.uk/en/media-hub/pressreleases/2020-press-releases/tpr-statement-on-climaterisk-guide-consultation

U.K. Government. 2020. *PM Commits £350 Million to Fuel Green Recovery*. https://www.gov.uk/government/news/pm-commits-350-million-to-fuel-green-recovery

U.K. Committee on Climate Change. 2020. *Reducing UK Emissions: 2020 Progress Report to Parliament*. https:// www.theccc.org.uk/publication/reducing-uk-emissions-2020-progress-report-to-parliament/

UK Prudential Regulation Authority, Bank of England. 2015. *The Impact of Climate Change on the UK Insurance Secto Climate Change Adaptation Report*. https://www. bankofengland.co.uk/-/media/boe/files/prudentialregulation/publication/impact-of-climate-change-on-theuk-insurance-sector.pdf

United Nations. 2015. *The Paris Agreement*. https://unfccc. int/sites/default/files/english\_paris\_agreement.pdf

UNEP. 2017. *The Status of Climate Change Litigation. A global review*. http://columbiaclimatelaw.com/ files/2017/05/Burger-Gundlach-2017-05-UN-Envt-CC-Litigation.pdf

UNEP-FI Net-Zero Asset Owners Alliance. 2020. *Position Paper on the Coronavirus Recovery*. https://www.unepfi. org/wordpress/wp-content/uploads/2020/07/Final-AoAposition-paper-on-the-economic-recovery-1.pdf

Van Oldenborgh, G.J. et al. 2017. Attribution of Extreme Rainfall from Hurricane Harvey *Environmental Research Letters* 12: 124009.

Van Zeben, J. 2015. Establishing A Governmental Duty Of Care For Climate Change Mitigation: Will Urgenda Turn The Tide? *Transnational Environmental Law* 4. https://www.cambridge.org/core/journals/ transnational-environmental-law/article/abs/establishinga-governmental-duty-of-care-for-climate-changemitigation-will-urgenda-turn-the-tide/4D5303EF08D3E2 7444AC0A7258601725

Vautard, R. et al. 2020. Human Contribution to the Record-breaking June and July 2019 Heatwaves in Western Europe. *Environmental Research Letters* 15: 094077.

## Annex Details of climate litigation cases referenced in this report

Case	Date/decision	Domestic jurisdiction /international court	Link to a brief summary/comments
Abrahams v. Commonwealth Bank of Australia (2017) VID879/2017	Filed 2017, withdrawn July 2018	Australia, Federal Court of Australia	http://climatecasechart.com/non-us-case/abrahams-v- commonwealth-bank-australia/
AES v. Steadfast	Filed September 2008, decided April 2012	U.S., Virginia Supreme Court	http://climatecasechart.com/case/steadfast-insurance-co-v-the-aes-corporation/
Animal Welfare Institute v. Beech Ridge Energy LLC	Filed December 2009	U.S., District Court for the District of Maryland	http://climatecasechart.com/case/animal-welfare-institute-v- beech-ridge-energy-llc/
Ashgar Leghari v. Federation of Pakistan (W.P. No 25501/2015) Lahore High Court Green Bench, Orders of 4 and 14 September 2015	Filed June 2015, decided September 2015	Pakistan, Lahore High Court	http://climatecasechart.com/non-us-case/ashgar-leghari-v- federation-of-pakistan/
Backcountry Against Dumps v. Jewell	Filed June 2016	U.S., Ninth Circuit Court of Appeals	http://climatecasechart.com/case/protect-our-communities- foundation-v-jewell/
Backcountry Against Dumps v. U.S. Bureau of Indian Affairs	Filed July 2020, ongoing	U.S., District Court for the Eastern District of California	http://climatecasechart.com/case/backcountry-against- dumps-v-us-bureau-of-indian-affairs/
<i>BP p.l.c. v. Mayor &amp; City Council of Baltimore</i>	Filed July, 2018, ongoing	U.S.A, Circuit Court for Baltimore	http://climatecasechart.com/case/mayor-city-council-of- baltimore-v-bp-plc/
<i>Breyer Group plc and others v. Department of Energy and Climate Change</i>	Decided 28 April 2015	U.K., Court of Appeal (Civil Division)	https://www.judiciary.uk/wp-content/uploads/2015/04/decc- v-breyer-judgment.pdf Litigation dealing with incentives for renewable energy. The Court of Appeal decided that a government department's proposal to reduce the feed-in tariff for small-scale solar panel installations was not in itself unlawful, but it amounted to an unjustified interference with energy companies' possessions because it had a disproportionate effect on those companies when balanced against the public interest <sup>103</sup>
<i>City of Los Angeles and New York v. US National Highway Traffic Safety Administration</i>	Filed 1986, decided August 1990	U.S., United States Court of Appeals for the District of Columbia Circuit	http://climatecasechart.com/case/city-of-los-angeles-v-nhtsa/ A group of cities, states and environmental groups brought two separate challenges under the National Environmental Policy Act (NEPA) to the National Highway Traffic Safety Administration's decision not to prepare an Environmental Impact Statement covering its Corporate Average Fuel Economy standards for model years 1987–88 and 1989. The court held that the petitioners had standing, but their challenge failed on the merits

103 This case is not included in the open-source databases used in this report.

Case	Date/decision	Domestic jurisdiction /international court	Link to a brief summary/comments
ClientEarth complaint against BP in respect of violations of the OECD Guidelines	Non-judicial complaint. Filed April 2019, opinion given June 2020 (concluded)	U.K.	http://climatecasechart.com/non-us-case/complaint-against- bp-in-respect-of-violations-of-the-oecd-guidelines/
<i>ClientEarth v. Enea</i>	Filed October 2018, decided 1 August 2019	Poland, Regional Court in Poznań	http://climatecasechart.com/non-us-case/clientearth-v-enea/
ClientEarth v. Polska Grupa Energetyczna	Filed September 2019, ongoing	Poland, Regional Court in Łódź	http://climatecasechart.com/non-us-case/clientearth-v- polska-grupa-energetyczna/
Comer v. Murphy Oil USA Inc 607 F.3d 1049 (5th Cir 2010)	Filed September 2005, dismissed August 2007	U.S., United States Court of Appeals for the Fifth Circuit	http://climatecasechart.com/case/comer-v-murphy-oil-usa- inc/
Commonwealth v. Exxon Mobil Corp.	Filed October 2019, ongoing	U.S., Massachusetts Superior Court	http://climatecasechart.com/case/commonwealth-v-exxon- mobil-corp/
Defenders of Wildlife v. U.S. Fish & Wildlife Service	Filed April 2016, ongoing	U.S., District Court for the Northern District of California	http://climatecasechart.com/case/defenders-of-wildlife-v-us- fish-wildlife-service/
DJL Farm LLC v. EPA	Filed February 2016, dismissed	U.S., Massachusetts Superior Court	http://climatecasechart.com/non-us-case/clientearth-v-enea/
EU Biomass Plaintiffs v. European Union	Filed March 2019, pending	European Union, The General Court (Fourth Chamber)	http://climatecasechart.com/non-us-case/eu-biomass- plaintiffs-v-european-union/
Friends of the Irish Environment v. Ireland	Filed October 2017, decided July 2020	Ireland, Supreme Court of Ireland	https://climate-laws.org/geographies/ireland/litigation_cases/ friends-of-the-irish-environment-v-ireland
Gloucester Resources Limited v. Minister for Planning [2019] NSWLEC 7	Filed December 2017, decided August 2019	New Zealand, New South Wales Land and Environment Court	http://climatecasechart.com/non-us-case/gloucester- resources-limited-v-minister-for-planning/
Greenpeace v. the Kingdom of the Netherlands (forthcoming)	Announced September 2020	The Netherlands	https://www.dutchnews.nl/news/2020/09/greenpeace-to- take-dutch-state-to-court-over-bail-out-for-highly-polluting- klm/
Harvard Climate Justice Coalition and others v. Harvard Corporation and others	Filed November 2014, decided October 2016		http://climatecasechart.com/case/harvard-climate-justice- coalition-v-president-fellows-of-harvard-college/
Illinois Farmers Insurance Co. v. Metropolitan Water Reclamation District of Greater Chicago	Filed April 2014, withdrawn June 2014	U.S., United States District Court for the Northern District of Illinois	http://climatecasechart.com/case/illinois-farmers-insurance- co-v-metropolitan-water-reclamation-district-of-greater- chicago/
INEOS Köln GmbH v. Bundesrepublik Deutschland	Filed September 2015, decided February 2018	European Court of Justice	http://climatecasechart.com/non-us-case/ineos-koln-gmbh-v- republic-of-germany/
Juliana v. United States	Filed August 2015, dismissed January 2020, under appeal	U.S., United States Court of Appeals for the Ninth Circuit	http://climatecasechart.com/case/juliana-v-united-states/
Kivalina v. ExxonMobil Corporation et al. 696 F.3d 849, 2012 WL 4215921 (9th Cir 2012)	Filed February 2008, dismissed September 2012	U.S., U.S. Supreme Court	http://climatecasechart.com/case/native-village-of-kivalina-v- exxonmobil-corp/

## C\

Case	Date/decision	Domestic jurisdiction /international court	Link to a brief summary/comments
Luciano Lliuya v. RWE AG	Filed November 2015, under appeal	Germany, Essen Higher Regional Court	http://climatecasechart.com/non-us-case/lliuya-v-rwe-ag/
Massachusetts v. Environmental Protection Agency (EPA) 549 US 497 (2007)	Filed 2003, decided April 2007	U.S., U.S. Supreme Court	https://climate.law.columbia.edu/content/massachusetts-v- epa
McVeigh v. Retail Employees Superannuation Trust	Filed July 2018, settled Novembr 2020	Australia, Federal Court of Australia	http://climatecasechart.com/non-us-case/mcveigh-v-retail- employees-superannuation-trust/
Milieudefensie et al. v. Royal Dutch Shell plc.	Filed December 2017, decided August 2019	U.S., U.S. Supreme Court	http://climatecasechart.com/non-us-case/gloucester- resources-limited-v-minister-for-planning/
Newberry Community Services District v. County of San Bernardino	Filed January 2020, ongoing	U.S., Superior Court of the State of California	http://climatecasechart.com/case/newberry-community- services-district-v-county-of-san-bernardino/
Notre Affaire à Tous and Others v. Total	Filed January 2020, ongoing	France, Nanterre District Court	http://climatecasechart.com/non-us-case/notre-affaire-a-tous- and-others-v-total/
O'Donnell v. Commonwealth	Filed July 2020, ongoing	Australia, Federal Court of Australia	http://climatecasechart.com/non-us-case/odonnell-v- commonwealth/
Pacific Coast Federation of Fishermen's Associations, Inc. v. Chevron Corp. et al.	Filed November 2018, ongoing	U.S., United States District Court for the Northern District of California	http://climatecasechart.com/case/pacific-coast-federation-of- fishermens-associations-inc-v-chevron-corp/ Case management conference scheduled for 16 Dec 2020 to 9 June 2021. The parties jointly requested that the conference be postponed until proceedings in the Supreme Court in <i>City of</i> <i>Oakland v. BP p.l.c.</i> and <i>County of San Mateo v. Chevron Corp.</i> have been concluded
People of the State of New York v. Exxon Mobil Corporation	Filed October 2018, decided October 2019	U.S., Supreme Court of the State of New York	http://climatecasechart.com/case/people-v-exxon-mobil- corporation/
<i>Plan B Earth and Others v. Secretary of State for Transport</i>	Filed August 2018, decided February 2020, under appeal	U.K., Court of Appeal	http://climatecasechart.com/non-us-case/plan-b-earth-v- secretary-of-state-for-transport/
Ridhima Pandey v. Union of India	Filed March 2017, dismissed January 2019, under appeal	India, National Green Tribunal of India	http://climatecasechart.com/non-us-case/pandey-v-india
<i>RWE (RWE AG and RWE Eemshaven Holding II BV) v. Kingdom of the</i>	Filed January 2021, ongoing	International Centre for Settlement of Investment Disputes	https://icsid.worldbank.org/cases/case-database/case- detail?CaseNo=ARB/21/4 German electricity company RWE filed a request for arbitration against the Netherlands at the International
Netherlands (ICSID Case No. ARB/21/4)			Centre for Settlement of Investment Disputes based on the Dutch government's decision to phase out coal for electricity generation <sup>104</sup>
<i>Smith v. Fronterra Co-Operative Group Limited</i>	Filed June 2020, dismissed March 2020	New Zealand, High Court	http://climatecasechart.com/non-us-case/smith-v-fronterra- co-operative-group-limited/
<i>Taip v. East Gippsland Shire Council</i>	Decided July 2010	Australia, Victorian Civil and Administrative Tribunal	https://climate-laws.org/geographies/australia/litigation_ cases/taip-v-east-gippsland-shire-council-victorian-civil-and- administrative-tribunal-2010

104 This case is not included in the open-source databases used in this report.

Case	Date/decision	Domestic jurisdiction /international court	Link to a brief summary/comments
<i>Urgenda Foundation v. State of the Netherlands</i>	Filed 2013, first decided in September 2015, final appeal decided in December 2019	The Netherlands, Supreme Court of the Netherlands	http://climatecasechart.com/non-us-case/urgenda-foundation- v-kingdom-of-the-netherlands/
Vataj v. Johnson (Case No. 19-cv-	ongoing	U.S., United States District Court for the Northern District of California	http://securities.stanford.edu/filings-documents/1072/ PEC00_17/20191025_f01c_19CV06996.pdf
06996-HSG)			Notably, the case does not explicitly identify climate change as a ground of claim. While climate change may have been a contributing factor to the intensity and destructiveness of the California wildfires, it was not identified as the cause of the fires and resulting damage – these were instead attributed to the company's negligence in maintaining its distribution lines. However, the complaint does specifically quote the company's statements about how climate change has made wildfires a growing threat
<i>Vimal Bhai v. Ministry of Environment and Forests</i>	Decided May 2011	India, National Green Tribunal of India	https://climate-laws.org/geographies/india/litigation_cases/ vimal-bhai-v-ministry-of-environment-forests
VZW Klimaatzaak v. Kingdom of Belgium	Filed 2018, ongoing	Belgium, Court of First Instance	http://climatecasechart.com/non-us-case/vzw-klimaatzaak-v- kingdom-of-belgium-et-al/
& Others			This case is similar to <i>Urgenda Foundation v. State of the Netherlands</i>

The 2008 financial crisis and deluge of disputes brought about by the COVID-19 pandemic demonstrate that crises can escalate litigation. A global crisis with widespread effects, climate change is also catalysing a rise in related litigation around the world. This report provides an analysis of the typology, backdrop and drivers of the climate change litigation landscape, aiming to define its boundaries and enable a holistic and systematic approach to monitoring this field going forward.

#### The Geneva Association

International Association for the Study of Insurance Economics Talstrasse 70, Zurich, Switzerland Tel: +41 44 200 49 00

www.genevaassociation.org