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Global trends in climate change litigation

As of March 2017, nearly 900 climate change cases had been filed globally, covering 24 countries and the European Union (EU). The vast majority of these cases were brought in the US. However, of the more than 230 climate change cases filed in jurisdictions outside of the US, Australia has seen the most. In the US and Australia, the first cases raising issues of climate change emerged in the 1990s, with the jurisprudence solidifying in the following decade. In Australia, the initial climate change case of Greenpeace v Redbank Power Co, a decision of Pearman J of the NSW Land and Environment Court in 1994, was followed by a succession of cases like the Hazelwood and the Anvil Hill cases in the 2000s. The US similarly had litigation involving climate change beginning in the 1990s, and these cases gained widespread recognition in 2007 with the first Supreme Court decision in Massachusetts v EPA. More recently, new case filings and discussions with environmental advocates indicate a growing interest in bringing climate change cases before the courts and emergent strategies for doing so.

Climate change litigation: lessons and pathways

Jacqueline Peel, University of Melbourne* and Hari M Osofsky, The Pennsylvania State University**

Climate change litigation has grown exponentially in the past decade, stimulated most recently by developments like the 2015 Paris Agreement and high-profile cases such as Urgenda v Netherlands. The following article surveys the lessons from past climate change litigation in the United States and Australia — the two countries with the largest numbers of cases — and potential pathways for future climate change litigation. It also considers the implications for courts of any “next generation” of climate change litigation, given an increasing focus on the use of court action as a strategic tool for spurring policy and social change.

Global trends in climate change litigation

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* Professor, Melbourne Law School; Associate Director Centre for Energy, Resources and Environmental Law. This work was supported by the Australian Research Council, DP130100500, Transition to a clean energy future: the role of climate change litigation in shaping our regulatory path (J Peel and H Osofsky) and is based in part on J Peel, H Osofsky and A Foerster, “Shaping the ‘Next Generation’ of Climate Change Litigation in Australia” (2017) 41(2) Melbourne University Law Review, forthcoming.

** Dean, Penn State Law and School of International Affairs, The Pennsylvania State University.

2 ibid, p 11, recording 654 cases filed in the US and 80 in Australia up to March 2017.
3 (1994) 86 LGERA 143.
4 Australian Conservation Foundation v Latrobe City Council (2004) 140 LGERA 100.
5 Gray v Minister for Planning (2006) 152 LGERA 258.
7 See, eg, In the Matter of the Quantification of Environmental Costs, 578 NW2d 794, 796–97 (Minn App 1998).
This “next generation” climate change litigation in the US and Australia, as well as globally, has been driven by a number of factors. These include the conclusion of the 2015 Paris Climate Agreement (to which Australia is a party) which sets global objectives regarding the maximum acceptable temperature rise and the need for the world to reach net zero greenhouse gas (GHG) emissions during the second half of the century. The Paris Agreement is not directly enforceable in national courts and even at the international level it has only weak compliance and dispute settlement provisions. Nonetheless, this treaty “makes it possible for litigants to place the actions of their governments or private entities into an international climate change policy context [which] … makes it easier, in turn, to characterize those actions as for or against both environmental needs and stated political commitments”.  

High-profile litigation around the world challenges the adequacy of government and corporate action to address climate change has provided further stimulus. Key cases include: the Urgenda case in the Netherlands (which found the Dutch government’s GHG emissions targets inadequate in light of climate science and international climate policy); the Leghari case in Pakistan (holding that failures of the national government to implement climate adaptation plans violated citizens’ fundamental constitutional rights); the ongoing Juliana litigation in the US (involving a suit brought by a youth coalition against the US government alleging that its climate policies fail to safeguard their rights to a safe climate future); and, most recently, the Thomson decision of New Zealand’s High Court (finding that the country’s domestic climate legislation required the government to review its 2050 emissions reduction target in light of the latest scientific findings of the Intergovernmental Panel on Climate Change.  

Coinciding with these international legal developments there have been other shifts, including improvements in climate science (eg in the area of “attribution science” estimating the additional risk of an extreme weather event or environmental harm attributable to climate change) and changing business culture (eg to recognise climate change as a source of material financial risk for many companies).  

**Defining climate change litigation**  
In both the academic literature and practice, there is no settled definition of climate change litigation. Some definitions — such as that used by the Sabin Center for Climate Change Law at Columbia University in classifying climate cases — emphasise the need for the litigation to “directly and expressly raise an issue of fact or law regarding the substance or policy of climate change causes and impacts”. However, such definitions tend to exclude cases where climate change is a more peripheral issue in the case or where litigants seek to accomplish climate change goals but do not directly reference climate change issues (often on the basis that other non-climate framings are considered to have greater strategic benefit). Other definitions include litigation where climate change is less central to the case (ie it is one of many issues raised by plaintiffs) or where the case is clearly motivated by a concern to address the problem of climate change. It can thus be useful to conceptualise climate change litigation as a series of concentric circles (see Fig 1 below). At the core are cases that directly engage questions of climate change law and science, such as corporate responsibility for the environmental impacts of GHG emissions. Moving towards the periphery of the circles, climate change tends to feature less in the arguments put before a court, even if addressing the problem of climate change remains one of the key motivators for those bringing the cases.

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9 Paris Agreement, Paris (France), 13 Dec 2015, in force 4 Nov 2016 (in UNFCCC, Report of the Conference of the Parties on its Twenty-First Session, Addendum, UN Doc FCCC/CP/2015/10/Add1, 29 Jan 2016). Australia ratified the Agreement on 10 November 2016. In August 2017, the US government submitted a formal notice that the country intends to withdraw from the Paris Agreement, a process which will not be complete until November 2020 in line with the terms of Art 28 of the Agreement.  

10 Paris Agreement, ibid, Art 2.1(a) and Art 4.1.  

11 UNEP, above n 1, p 9.  


15 Thomson v Minister for Climate Change Issues [2017] NZHC 733, at www.courtsofnz.govt.nz/cases/thomson-v-the-minister-for-climate-change-issues/#/images/fileDecision?r=732880829922, accessed 27/11/2017. The court found that the results of NZ’s election, installing a Labour-coalition government, rendered the decision moot as the new government has pledged to review and reduce the country’s 2050 target.  


Climate change litigation can also be classified in various ways depending on the objectives pursued by litigants. For instance, mitigation cases are those primarily concerned with challenging emissions-intensive projects, such as coal-fired power stations. Other cases may have an adaptation focus as they are directed to improving planning for future climate change or recovering compensation for losses associated with the implementation of adaptive measures. Cases may also have pro-regulatory objectives (designed to improve climate change regulation) or anti-regulatory ones (designed to obstruct, delay or challenge climate change regulation). For instance, in the US, pro-regulatory climate change litigation has achieved significant outcomes through cases such as Massachusetts v EPA. There have also been numerous anti-regulatory cases such as those challenging Obama administration regulations seeking to implement the Massachusetts v EPA mandate.

Fig. 1: Conceptualising climate change litigation

Lessons from the past — US and Australian climate litigation

In the United States and Australia, which have the most-developed climate change jurisprudence, the majority of cases have involved the following features:

- arguments based on the interpretation of existing statutory law (eg relating to environmental protection, land use planning or environmental impact assessment) seeking to incorporate climate change considerations within the scope of the legislation
- challenges to administrative decision-making (either via judicial review or merits review) by governments; and
- efforts to incorporate climate change considerations into environmental review of individual emissions-intensive projects.

There are, of course, some important differences between the evolution of climate change litigation in the two countries. The US has a far more extensive mitigation jurisprudence that includes several Supreme Court cases. Major US federal environmental statutes, unlike those in Australia, have extensive citizen suits provisions that have allowed for these high-profile mitigation cases. In contrast, Australia has a more well-developed adaptation jurisprudence emanating from State-based planning and environmental courts and tribunals. Adaptation case law in the US remains at a more nascent stage.

In addition, US climate change litigation has experimented with a greater range of legal pathways than the Australian climate case law. While Australia has seen some cases targeting companies for misleading advertising or disclosures relating to climate change, US litigants have targeted corporate actors in several lawsuits (unsuccessfully to date) utilising tortious avenues of nuisance and conspiracy, as well as claims for misleading disclosure under corporate and securities law.

Another body of cases — of which the Juliana litigation is the latest manifestation — has used arguments based on common law doctrines of the public trust (with such arguments coupled with claims of violation of substantive due process and constitutional rights in the Juliana case).

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20 Nachmany et al, above n 19 above, identifying objectives such as challenging projects, forcing disclosure, improving regulation and recovering loss.
21 A further category identified by some authors is “reactive” litigation using involving suits against protestors or climate scientists who seek to resist claims against them relying on climate change grounds. See further Hilson, above n 19.
22 549 US 497 (2007). The US Supreme Court ruled that under the Clean Air Act the Environmental Protection Agency (EPA) was required either to regulate motor vehicle GHG emissions as an air pollutant or better justify its refusal to do so.
23 Markell and Ruhl, above n 18.
As noted above, the US has also seen the emergence of anti-regulatory climate cases. Most of these lawsuits involve challenges to regulations regarding motor vehicle and coal plant GHG emissions introduced by the Obama administration (now being rolled back by the Trump administration) that were designed to implement the US Supreme Court’s decision in Massachusetts v EPA. There have also been a series of cases under the US Constitution’s dormant Commerce Clause involving business-led challenges to State renewable energy and climate change laws.30

The bread-and-butter climate change cases in the US and Australia though remain those brought under environmental statutes. These statutory cases — which might be termed “first generation” climate change litigation — have achieved some significant regulatory gains for the US and more modest ones in Australia.31

Apart from the seminal US case of Massachusetts v EPA, they have largely brought about incremental legal change that has favoured a greater inclusion of climate change matters in administrative decision-making over time. Many cases have also had important indirect impacts, by helping to draw public attention to the problem of climate change, shaping the behaviour of government decision-makers and elevating issues of climate change risk in corporate boardrooms.31

Cases over coal exemplify the differences between the two jurisdictions. In the US, a very successful Sierra Club campaign coupled with litigation interventions, as well as market shifts due to the advent of hydraulic fracturing paired with horizontal drilling, has helped to accelerate retirements of coal-fired power stations across the country.32 However, Australian climate change litigation has very little to show in terms of GHG emissions avoided through stopping emissions-intensive projects like coal mines or power stations.33

This frustration with the climate mitigation outcomes of case law is another reason why advocates are increasingly interested in pursuing novel, potentially more “impactful” legal avenues in climate change litigation.

Pathways for future climate change litigation

Lawyers and advocacy organisations involved in climate change litigation have generally taken a creative approach to exploring the possibilities for lawsuits to advance action on climate change. International case law developments suggest a wide range of potential legal pathways for future climate change litigation, although careful consideration will be needed to establish their workability in any particular jurisdictional setting. In general, this “next generation” climate change litigation draws on an accountability model whereby legal interventions are designed to hold governments and corporations directly accountable for the climate change implications of their activities.34

Lawsuits in this vein often embrace a broader range of parties pursuing climate change-related litigation with a different range of motivations than those of first generation litigants. In particular, parties may not be pursuing actions to advance beneficial outcomes for addressing climate change as a primary goal. Even if they are driven by commercial motives though, the end result is potentially beneficial to addressing climate change where cases foster better consideration of climate change risks in business decision-making and the eventual uptake of clean energy practices. This trend is particularly apparent in the growing interest in lawsuits brought by shareholders and investors against companies and directors over inadequate disclosure of climate change risk. But it is equally the case in emerging US public trust lawsuits like Juliana or rights-based cases such as Leghari.

Another difference that is evident between past cases and proposed next generation cases is the move away from using primarily administrative law avenues under environmental legislation to more broadly exploring causes of action found in the common law or in other areas of law outside of the environmental field. Although some common law claims have been brought unsuccessfully in the US for many years, with a public nuisance case even reaching the US Supreme Court in AEP v Connecticut,35 these new cases around the world are trying additional strategies, such as public trust and human rights arguments. This expansion of the scope of legal avenues considered for climate change litigation reflects concerns with the adequacy of administrative review (particularly judicial review) as a tool for effecting transformative legal change in the climate change arena,36 as well as a desire to provide stronger foundations for duties of care on the part of governments and corporations to address climate change.

29 See Peel and Osofsky, above n 24.
30 See further Peel, Osofsky and Foerster, above at .
31 Peel and Osofsky, above n 24; B Preston, “The influence of climate change litigation on governments and the private sector” (2011) 2 Climate Law 485.
34 Merits and judicial review are also means to hold governments accountable for their decision-making. In “first generation” cases, however, such actions are designed to ensure that governments meet statutory requirements and act within the law. In “next generation” cases, the focus is on how government policy, action or inaction contributes directly to climate change and ways of holding governments to account for those contributions.
35 Above n 28.
The legal avenues being considered as a basis for next generation climate change litigation are often not themselves novel causes of action but rather ones grounded in the legal traditions of those jurisdictions. By turning to older legal precedents, well-established mechanisms in other areas of law, and “ancient” common law doctrines such as the public trust, the architects of future climate change litigation seek to repurpose these existing legal tools for new climate-related ends.

Legal avenues for climate change litigation that are currently receiving considerable attention include the following:

**Claims in negligence against government or corporate actors for breach of a duty of care to protect citizens from climate change impacts.**

Contemplated cases in this vein are seeking to replicate the Urgenda case in other countries. This is likely to be more feasible in other European civil law countries with similar code provisions on negligence to those in the Netherlands. Common law jurisdictions, such as Australia and the US, pose a more challenging context for these cases with unresolved issues regarding the existence of a relevant duty of care, foreseeability of harm and establishment of causation.

**Actions under corporations law, suing companies or their directors, auditors or advisors for failures to disclose adequately or act appropriately on climate change risks to their businesses.**

Several investigations, regulatory complaints and shareholder actions in the US and UK could serve as a model for these claims. In Australia, a legal opinion issued by respected Sydney barrister, Noel Hutley SC, concludes “it is likely to be only a matter of time before we see litigation against a director who has failed to perceive, disclose or take steps in relation to a foreseeable climate-related risk that can be demonstrated to have caused harm to a company.”

**Human rights, Indigenous rights or (environmental) constitutional rights’ claims asserting that failures of mitigation or adaptation violate rights’ protections.**

This avenue for climate change litigation is growing globally with many decided or pending cases drawing on rights protections in national constitutions. In Australia, however, the possibilities for rights-based claims are limited given the lack of a national Bill of Rights.

**Claims based on common law notions of the public trust, arguing that this doctrine requires the protection of natural resources (coastal wetlands, water resources, the atmosphere) for the benefit of the public.**

The US has seen a wave of lawsuits in the last few years based on arguments that government failures to adequately constrain GHG emissions breach a public trust obligation to safeguard natural resources in the public interest. Juliana is the most recent of these US cases and combines public trust arguments with constitutional rights claims. In November 2016, Aiken J of the US District Court for the District of Oregon issued an opinion and order denying the US government and fossil fuel industry’s motions to dismiss the case. This preliminary decision confirmed that the plaintiffs have a justiciable case and standing to pursue their case at trial, although the litigation is ongoing and its eventual outcome remains highly uncertain. In Australia, there has been only limited consideration of the potential

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37 Juliana v United States, above n 14, is one such example.
38 T Baxter, “Urgenda-style litigation has promise in Australia” (2017) 32(3) Australian Environment Review 70. Cases in common law jurisdictions may instead pursue administrative review avenues similar to the recent case of Thomson v Minister for Climate Change Issues, n 15 above.
43 Rights-based claims would need to rely on other avenues such as: international avenues of complaint (eg a complaint to the UNHRC under the optional Protocol to the ICCPR); judicial review of federal administrative decision-making on the basis that international human rights obligations must be taken into account; or actions at the State level, raising arguments under human rights charters in the ACT and Vc. For a consideration of the viability of a complaint under the ICCPR Optional Protocol, contending that Australia’s ongoing failure to adopt sufficient measures to reduce GHG emissions constitutes a violation of the rights of Torres Strait Islanders, see O Cordes-Holland, “The sinking of the Strait: the implications of climate change for Torres Strait Islanders’ human rights protected by the ICCPR” 9(2) (2008) Melbourne Journal of International Law 405.
45 The Juliana v USA case, above n 37.
applicability of the public trust doctrine to an Australian environmental litigation and policy context and limited opportunity for Australian judges to consider its applicability.47

Implications for courts

Developments around the world create important opportunities for an innovative next generation of Australian climate change litigation. New cases in the US, the Netherlands and Pakistan help to put a human face on climate victims,48 and provide models for how successful cases focused on rights, duties, and common law principles might be framed. In addition, evolving efforts to use corporate and other commercial law mechanisms around the world, paired with growing attention to corporate disclosure of climate change risks, suggest interesting new possibilities for litigation.49 These emerging approaches create an opportunity for Australian advocates to explore new pathways at the same moment as political change in the US may prompt innovation there also.

For Australian courts hearing these cases, a number of potential challenges arise. Where cases are brought with a strategic purpose of prompting legal, political or social change,50 defendants may raise arguments that the lawsuits are vexatious or potentially bring counterclaims in defamation.51 Australian judges may have to determine whether climate change cases can still be viewed as public interest litigation with attendant consequences for decisions on standing and costs.

In both jurisdictions, courts are likely to continue to be presented with arguments about the extent of their appropriate adjudicatory role in some contexts. This may manifest as questions over justiciability, the limits of judicial review, separation of powers or (in the US context) the “political question” doctrine.52 In the US, such arguments have largely failed, except in the context of lawsuits involving federal public nuisance, in which the Supreme Court held that the EPA's statutory authority to regulate under the Clean Air Act displaced such claims.53

To date, these challenges have not provided significant obstacles to climate change litigation. Courts around the world have been willing to consider a wide range of claims involving climate change and robustly apply the law. Moreover, in a context in which current government efforts globally are not nearly enough to prevent the worst impacts of climate change,54 advocates will continue to see litigation as an important tool to push and block government action, and try to advance needed mitigation and adaptation efforts.


48 A focus on human “victims” of climate change arguably offers a more compelling narrative for climate change litigation by making “climate change more tangible and more immediate”: see D Hunter, “The implications of climate change litigation: litigation for international environmental law-making” in W Burns and H Osofsky (eds), Adjudicating climate change: state, national and international approaches, CUP, 2009, pp 357, 360.

49 Another recent decision in this vein is a ruling of the Civil High Court in Hamm, Germany, finding that a claim for compensation for climate-related harms by a Peruvian farmer against Germany energy company, RWE, can proceed to the evidentiary hearing stage. See: https://germanwatch.org/en/huaraz, accessed 27/11/2017.


51 Along the lines, for example, of the litigation by Gunns Ltd against Tasmanian forestry activists. See G Ogle, “Beating a SLAPP suit” (2007) 32(2) Alternative Law Journal 71.

52 The Thomin case, above n 15, considered the issue of the justiciability of the plaintiff’s claims for review of New Zealand’s 2030 target set as part of its Nationally Determined Contribution to the Paris Agreement and, after reviewing decisions such as Massachusetts v EPA, Juliana and Urgenda, concluded: “these cases illustrate that it may be appropriate for domestic courts to play a role in Government decision making about climate change policy”: at [133].


54 See UNFCCC Secretariat, “Synthesis Report on the Aggregate Effect of the Intended Nationally Determined Contributions” (30 October 2015) FCCC/CP/2015/7. This report assesses countries current nationally determined contributions under the Paris Agreement which put the world on track for an estimated temperature rise of 2.7°C, well above the “safe” level of 2°C.