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Article *in* Climate Policy · January 2021

DOI: 10.1080/14693062.2020.1867047

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ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/tcpo20

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To cite this article: Charles Beauregard , D'Arcy Carlson , Stacy-ann Robinson , Charles Cobb & Mykela Patton (2021): Climate justice and rights-based litigation in a post-Paris world, Climate Policy

To link to this article: https://doi.org/10.1080/14693062.2020.1867047

Published online: 08 Jan 2021.

CLIMATE POLICY
https://doi.org/10.1080/14693062.2020.1867047

Taylor & Francis
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RESEARCH ARTICLE

Climate justice and rights-based litigation in a post-Paris world

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ABSTRACT

In spite of the 2015 Paris Agreement requiring all Parties, irrespective of their development status, to take climate action, the operationalization of climate justice in global climate governance and policy has been fraught. Other avenues, such as litigation, have emerged as a policy tool for seeking redress for past and prospective harm resulting from climate change. The academic and policy literatures have, however, had limited engagement with the role of rights-based litigation in climate governance since Paris. We help fill this gap by developing the four-component OATH (Objective, Associated climate impact, Type of justice, Harm) framework and applying it to three high-profile climate litigation cases – *Urgenda v. The Netherlands, Juliana v. United States,* and *Demanda v. Minambiente*. Our analysis confirms that the progress and achievements of these cases demonstrate the potential of climate litigation to force greater national and sub-national government action on climate change. However, litigation better serves some types of justice (e.g. intergenerational) than others (e.g. distributive). Therefore, as its ambition and progress continue to grow, litigation must be combined with other forms of climate action to better advance justice in a post-Paris world.

Key policy insights:

- International climate agreements and obligations are important to the success of climate litigation.
- Climate litigation can be used to hold countries accountable to the commitments they communicate in their NDCs and other policy instruments, but it should be used as one of several policy tools.
- Litigation pertaining to climate adaptation should and can be expanded to support and advance justice.
- Distributive justice cannot be sufficiently advanced through domestic climate litigation so it must be further incorporated into international climate agreements and obligations.
- The universal right to a clean environment, its definition and criteria should be (a) established in international environmental agreements and obligations, and (b) aligned with the goals of the Paris Agreement.

ARTICLE HISTORY
Received 6 August 2020
Accepted 16 December 2020

KEYWORDS
Courts; human rights; justice; liability; nationally determined contribution (NDC); Paris Agreement

Introduction

Climate change has long been recognized as a serious environmental issue but has only recently been linked to social justice (Levy & Patz, 2018; Malloy & Ashcraft, 2020; Patterson et al., 2018). Efforts to advance justice have been increasingly incorporated into global climate policy (Adelman & Lewis, 2018; Lewis, 2018). The 2015 Paris Agreement defines a long-term goal to limit global warming to 'well below 2°C above pre-industrial levels', with efforts to limit to 1.5°C (Paris Agreement, 2015, Article 2), and requires Parties to submit nationally determined contributions (NDCs) that outline their self-determined actions that contribute towards these warming limits (UNFCCC, 2019). NDCs should represent countries' 'best efforts' to limit their greenhouse gas (GHG) emissions

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and to adapt to the impacts of climate change. The Agreement further emphasises the principle of 'common but differentiated responsibilities and respective capabilities' (CBDR+RC) and urges countries to consider their 'respective obligations on human rights' and equity when setting NDCs, explicitly linking human rights and climate change (Mills-Novoa & Liverman, 2019; Pauw et al., 2019; Weikmans et al., 2020). The Agreement, therefore, helps bring 'climate justice' to the forefront of global climate discourse and offers an international platform to support the advancement of justice and justice-related issues in the context of climate change (Adelman, 2018; Khan et al., 2020; Lyster, 2017; Okereke & Coventry, 2016). However, climate justice considerations are relegated to the non-binding portions of the Agreement with a mere note in the Preamble of the concept's 'importance for some' (Paris Agreement, 2015, Preamble). As a result, some authors question whether this undermines the advancement of climate justice (e.g. see Khan et al., 2020; Lyster, 2017), while others question whether international climate policy should, in fact, reflect justice principles and further suggest 'that climate justice argumentations be left out of the climate regime altogether' (cited in Savaresi, 2016, p. 23).

There is no internationally-agreed definition of 'climate justice', however, it is generally thought to represent climate change and action having 'ethical implications and considers how these relate to wider justice concerns' (Robinson & Shine, 2018, p. 564). 'Climate justice' highlights the substantive and procedural rights of individuals, communities, and governments to enjoy 'a safe, clean, healthy, and sustainable environment' and take measures within their national legislative and judicial systems and at regional and international levels to mitigate and adapt to climate change 'in a manner that respects human rights' (International Bar Association, 2014, p. 2). As highlighted by Khan et al. (2020), various types of justice exist. Cimate justice encompasses distributive justice–the 'allocation of costs and benefits'–and procedural justice–the representation of all stakeholders in processes that impact them (Colenbrander et al., 2018, p. 903; Khan et al., 2020). Recognition justice deals with recognizing the injustices of the past to challenge societal norms today, while neoliberal justice is the idea that mutual advantage can be a form of justice and that property rights should be respected in justice frameworks (Khan et al., 2020). Compensatory, restitutive, and corrective justice centre on the rights of all people to be respected and require that compensation is provided if a violation of rights occurs (Khan et al., 2020). Derived from these types of justice is intergenerational justice – the preservation of favourable conditions for future generations by recognizing that current actions affect future societies' wellbeing (Howarth, 2012). As climate change has implications for present and future generations, intergenerational justice is a critical consideration. Therefore, climate change and the violation of the right to the enjoyment of the environment can intersect with or be manifested in a single type or multiple types of justice.

The filing of lawsuits in local courts is emerging as a potential domestic legal measure for holding governments accountable to their domestic and international climate and climate-related commitments, including those established in their NDCs. Climate litigation refers to 'the rapidly growing body of lawsuits in which climate change and its impacts are either a contributing or key consideration in legal argumentation and adjudication' (Ganguly et al., 2018, p. 843). Such cases, including constitutional, civil, and public law, are rapidly expanding as alternatives to slow global governance and weak, non-binding international agreements (Peel & Osofsky, 2020). And as climate litigation has grown – with more than a thousand cases identified across the world at the time of writing (Ganguly et al., 2018; UNEP, 2017) – so too has the academic and policy literatures evaluating various cases (Peel & Osofsky, 2020). The literature has, however, primarily focused on pure legal analyses of select cases, especially those adjudicated in the Global North. Notwithstanding works such as Fisher et al. (2017), Peel and Osofsky (2020), and Setzer and Vanhala (2019), little attention has been paid to assessing rights-based litigation's role, influence, and/or effectiveness in climate governance, specifically within the context of climate justice. As a result, there is limited conversation or consensus about the utility and future of rights-based litigation in the field of climate action. We help to fill this gap by developing and applying a human rights-based framework to three high-profile climate litigation cases adjudicated in the Global North and South in order to weigh in on whether litigation can be used as a policy tool for advancing justice in the aftermath of the 2015 Paris Agreement.

Materials and methods

Intergenerational justice is critical to our investigation of climate justice and rights-based litigation since the adoption of the Paris Agreement (see discussions in Lewis, 2018). As a result, we use it as a criterion for selecting

our three cases – *Urgenda Foundation v. The Netherlands, Juliana v. United States,* and *Demanda v. Minambiente*. We develop the four-component OATH (Objective, Associated climate impact, Type of justice, Harm) human rights-based framework that primarily extends Toussaint (2020) and Toussaint and Martínez Blanco (2020). The three cases, filed respectively before, during the year of, and after the adoption of the Paris Agreement, set the framework for nationally-determined, justice-oriented policy; high-profile cases have the 'potential to engage a variety of actors … and to spur momentum inside and outside the UNFCCC [United Nations Framework Convention on Climate Change]' (Toussaint, 2020, p. 6). A deeper analysis of these cases can, therefore, motivate and provide a basis for future climate litigation at a wide range of scales and scopes to support climate justice and establish climate rights.

Overview of cases

The first case we analyze is *Urgenda Foundation v. The Netherlands*. It was filed in district court in The Netherlands in 2013, by the Urgenda Foundation – a Dutch organization with the central aim of using innovation to rapidly transition to a sustainable society – on behalf of 886 Dutch citizens ('Urgenda Foundation v. State of the Netherlands', 2019). *Urgenda* argued that the Netherlands' mitigation commitment of a 16% reduction in emissions relative to 1990 levels by 2020 was insufficient for preventing 2°C of warming ('Urgenda Foundation v. State of the Netherlands', 2015). The court ruled that the government had failed in its duty to prevent serious harm to the environment and take care of Dutch citizens, requiring it to increase its emissions reduction target to at least 25% ('Urgenda Foundation v. State of the Netherlands', 2019). The Court of Appeal focused on human rights, invoking the Dutch Civil Code and the European Convention of Human Rights (ECHR) Articles 2 and 8, which offer protections of the right to life and to respect for private and family life, respectively ('Urgenda Foundation v. State of the Netherlands', 2015). Decided by the Supreme Court in December 2019, it was the first rights-based case to result in a judgement requiring a national government to curb its GHG emissions (see discussions in Roy & Woerdman, 2016) – using human rights to hold legislative and executive bodies accountable to climate commitments (Roy, 2019).

Our second case is *Juliana v. United States*. It was filed in district court in the US State of Oregon by 21 youth plaintiffs in 2015 ('Juliana v. United States', 2015). The claimants argued that the US Federal Government violated their constitutional right to life, liberty, and property, and threatened essential public trust resources ('Juliana v. United States', 2015, p. 3). Distinct from *Urgenda*, which was directed by Dutch Civil Code and the ECHR, this case relies on constitutional rights, making it more significantly influenced by federalism than international law. While human rights are considered to be universal to all and secured through international agreements, constitutional rights are specific to each country. Thus, the application of human rights through constitutional rights may further support these rights. *Juliana* seeks a governmental plan to curb carbon emissions consistent with limiting atmospheric concentrations to 350 parts per million (ppm) by the year 2100 ('Juliana v. United States', 2015, p. 3), a demand that has been subject to political and legal criticism, specifically on legal standing. Standing determines who can participate in lawsuits and asks whether plaintiffs and defendants have enough cause to 'stand' before the court and advocate. The plaintiffs filed an *en banc* petition in March 2020 to have the case heard before all the judges of a court rather than by one judge or a select panel of judges (see Sadinsky, 2014). Hence, the case is ongoing.

Our third case is *Demanda v. Minambiente*. It was filed in 2018 by 25 people aged seven to 26 who were supported by Dejusticia – a Colombia-based research and advocacy organization. The duration of the case spanned only a few months. The plaintiffs filed a 'tutela' – a unique Colombian constitutional tool to protect rights – against the government and several municipalities and corporations, claiming that the climate crisis and deforestation of the Amazon threaten their rights to a healthy environment (Acosta Alvarado & Rivas-Ramírez, 2018; 'Demanda Generaciones v. Minambiente', 2018). The court recognized the connection between climate change, deforestation and human rights, and stated that the 'fundamental rights of life, health, the minimum subsistence, freedom, and human dignity are substantially linked and determined by the environment and the ecosystem' ('Demanda Generaciones v. Minambiente', 2018, p. 13). The ruling required the Colombian Government to implement action plans to reduce deforestation to net zero by 2020, in line with its first NDC, which was submitted to the UN Climate Secretariat in 2018.

This case study approach is consistent with a holistic multiple-case study design (see Yin, 2009). Case studies facilitate the exploration of the unexpected and unusual, contribute to rich theoretical and conceptual development, and help researchers understand complex inter-relationships (Gerring, 2004; Hodkinson & Hodkinson, 2001; Yin, 2003). Multi-case studies enable a focus on the significance of the idiosyncratic, for example, understanding the contextual specifics of legal comparisons (Hodkinson & Hodkinson, 2001). Our three cases are considered sufficient for describing 'a contemporary phenomenon […] set within its real-world context – especially when the boundaries between phenomenon and context are not clearly evident' (Yin, 2009, p. 18). However, they fall within Bouwer's (2018, pp. 1–2) criticism of the literature's current focus on 'holy grail' cases, which are 'high-profile cases against national governments or major emitters, seeking increased mitigation ambition or compensation'. Although our cases have received considerable attention in the academic and policy literatures, studies such as de Graaf and Jans (2015) and Loth (2018) analyze them from a purely legal perspective. We help to fill this gap by analyzing their implications for the development and implementation of international climate law and policy as well as their implications for climate justice. This paper, therefore, demonstrates how climate litigation can be used to advance justice, specifically intergenerational justice, and facilitate further climate action globally.

The OATH human rights-based framework

In order to weigh in on whether litigation can be used as a policy tool for advancing justice in the aftermath of the 2015 Paris Agreement, we develop the four-component OATH human rights-based framework that primarily extends Toussaint (2020) and Toussaint and Martínez Blanco (2020). For 27 cases, Toussaint (2020) compares the (1) timing of harm (status outcome, objective, and the harm itself), (2) associated climate impact, (3) type of harm, and (4) localization of harm. OATH shifts away from Toussaint's (2020) focus on the role of climate litigation in international climate agreements and instead focuses on its role as a tool for advancing climate justice in a post-Paris world. We additionally diverge from Toussaint's (2020) 'loss and damage' context regarding the cases, as recent work such as Doelle and Seck (2020), establishes that litigation is an insufficient tool in this regard. We disaggregate Toussaint's (2020) four categories by first excluding 'status outcome' (part of Toussaint's [2020] (1)) from our formal analysis. We instead use it as a springboard for our discussion of the cases' implications for climate justice. We retain 'objective' (part of Toussaint's [2020] (1)) and use it as the first component in OATH. Objective refers to the claimants' intentions (i.e. what they want the outcome of the case to determine or require), which according to Frank et al. (2019) and Setzer and Vanhala (2019), can vary. Our second component is the 'associated climate impact' that claimants' assert triggers harm, covering both rapid and slow onset events (see Doelle & Seck, 2020; Lyster, 2017; Surminski & Lopez, 2015). We add 'type of justice' as the third component and screen for whether the cases pursue intergenerational, distributive, procedural, recognition, compensatory, restitutive, corrective, and/or neoliberal justice, as theorized by Howarth (2012) and Khan et al. (2020). We lastly combine the harm itself (part of Toussaint's [2020] (1)) with Toussaint's [2020] (3) and (4) for a combined analysis of 'harm'. Harm is a specific threat to claimants' health and/or environment caused by associated climate impacts and covers the scope, scale, and type of harm being asserted (see Doelle & Seck, 2020; Klinsky, 2018). Together, these four components allow us to explicitly establish multiple links to discussions of their justice implications, thereby further building on work by Moellendorf (2012), Levy and Patz (2018), Robinson and Shine (2018), and Schapper (2018).

Results and discussion

Table 1 below summarizes the results of our application of the OATH framework to each of the three cases.

Objective

We find that our three cases focus on GHG emissions reduction (i.e. climate mitigation), placing little (to no) emphasis on climate adaptation and/or compensation. *Urgenda* argued for the government to increase its emissions reduction commitments – having been identified as insufficient for meeting the 2°C warming limit set out in the Paris Agreement ('Urgenda Foundation v. State of the Netherlands', 2015). The plaintiffs sought recognition of and action by the government to prevent and protect its citizens from serious

Table 1. Summary of cross-case synthesis following the application of the OATH framework.

OATH component	Case (filing year)		
	Urgenda v. The Netherlands (2013)	Juliana v. United States (2015)	Demanda v. Minambiente (2018)
1 Objective	GHG emissions reduction; recognition of government's human rights obligations	GHG emissions reduction; adaptation to climate impacts (no damages sought)	GHG emissions reduction; slowing deforestation rates
2 Associated climate impact	Climate change, broadly (i.e. sea-level rise; extreme weather events; desertification etc.)	Climate change, broadly (i.e. sea-level rise; extreme weather events etc.)	Climate change, broadly, and deforestation (i.e. alterations of ecosystems; deterioration of water sources and supply)
3 Type of justice	Intergenerational; distributive; procedural; recognition	Intergenerational; procedural	Intergenerational; procedural
4 Harm	Prospective harm at the national level: property damage; business interruption; reduced quality of life; diminished human health; increased mortality	Specific past and prospective harm at the national and community levels: freshwater shortage; mass migrations; soil degradation; public health system collapse; species extinction; property damage	Prospective harm at the national and subnational levels: biodiversity loss; deforestation; diminished human health
– Status outcome	Decided	Ongoing	Decided

Source: Authors.

environmental damage. *Juliana* seeks a detailed action plan from the US Federal Government to curb GHG emissions to address the alleged violations of fundamental human rights, and, to a lesser extent, calls for measures to adapt to the impacts of climate change ('Juliana v. United States', 2015). *Demanda* additionally sought increased action from the Colombian Government to protect, maintain, and restore the Colombian Amazon in response to their claim that climate change and deforestation threaten their fundamental rights to a healthy environment ('Demanda Generaciones v. Minambiente', 2018).

This focus centres the cases on the source of climate change, consistent with Bouwer's (2018) finding that the majority of climate litigation cases focus on reducing GHG emissions. While this is important for minimizing the long-term impacts of climate change, mitigation is just one part of the climate challenge and one component of using climate litigation as a tool for delivering justice (Fleming et al., 2014; Setzer & Vanhala, 2019; Wood & Roelich, 2019). Mitigation litigation supports intergenerational justice as it aims to reduce long-term climate impacts. However, adaptation litigation for addressing and adjusting to climate impacts, as called for in *Juliana* and cases centred on compensation, additionally play key roles for justice, as they address the already existing climate injustices (Broberg & Romera, 2020). The ability of litigation to address these issues is limited to an extent. Several cases have shown the challenges and ambiguity of incorporating concerns beyond mitigation, such as adaptation or compensation. However, most are pending, decided but against the claimants, or place only little emphasis on these issues over mitigation (see Liszka, 2010 for a discussion of e.g. Kivalina v. ExxonMobil, 2008; Exxon Shipping v. Baker, 2008). The combined effects of growth in climate litigation, paired with strong supporting scientific evidence and the Paris Agreement's increased emphasis on adaptation and other themes, creates potential for further growth and expansion in climate litigation (Peel & Osofsky, 2020; Toussaint, 2020). While a focus on GHG emissions reduction can facilitate a path for justice, it will be crucial to also incorporate alternative objectives in order to advance justice more broadly.

Associated climate impact

The cases each raise the potential threat of both rapid and slow onset events caused by climate change, while *Demanda* additionally highlights the impacts of deforestation in the Colombian Amazon. The *Urgenda* plaintiffs argued that the burning of fossil fuels – and the resulting GHG emissions – is the main cause of climate change, using scientific evidence to identify a number of correlating environmental impacts that will inevitably impact well-being in the Netherlands ('Urgenda Foundation v. State of the Netherlands', 2015). The plaintiffs provided relevant background on the severe impacts of climate change on global and local ecosystems and humanity. They cited 'sea level rise, more frequent flooding, greater incidence and severity of extreme weather

phenomena, desertification, crop failures and drinking water shortages, and extinction of animal and plant species' as future potential threats ('Urgenda Foundation v. State of the Netherlands', 2015, p. 29). *Urgenda* suggests that 'these proceedings therefore also affect the habitability and liveability of large parts of the Netherlands in the future' ('Urgenda Foundation v. State of the Netherlands', 2015, p. 20). *Juliana* similarly argues that government negligence has led to increased emissions causing catastrophic climate change ('Juliana v. United States', 2015). The case identifies specific impacts of climate change, similar to those identified in *Urgenda*, that threaten the well-being of citizens, including sea-level rise and increasing frequency and severity of weather phenomena ('Juliana v. United States', 2015). *Demanda* plaintiffs argued that the broad impacts of climate change and deforestation directly harm citizens' right to a healthy environment, life, and health and that the combined threat of climate change and deforestation will have major negative consequences during their lifetime ('Demanda Generaciones v. Minambiente', 2018). These consequences include the alteration of the water cycle, soils and associated ecosystems, changes in water resources, and increased global warming ('Demanda Generaciones v. Minambiente', 2018).

Based on the arguments outlined above, the three cases relied heavily on scientific evidence and the defendants' obligations per the international environmental agreements to which they are Parties (see discussions in James et al., 2019; Mechler et al., 2019). *Urgenda* used assessment reports of the Intergovernmental Panel on Climate Change (IPCC) to argue that the Dutch Government should take sufficient mitigation measures to meet its obligations under the UNFCCC, the Kyoto Protocol, and the Paris Agreement along with its NDC (de Graaf & Jans, 2015; Huang & Tigre, 2016). While *Juliana* could not attempt to hold the US Government to its NDC commitment as the document was submitted to the UN Climate Secretariat in 2016 and after the case was filed, the plaintiffs' demand of an emissions reduction target consistent with limiting atmospheric carbon dioxide concentrations to 350 ppm by 2100 was also based on science ('Juliana v. United States', 2015). *Demanda* used the scientific evidence of the climate impacts of deforestation to hold the Colombian Government accountable to its NDC commitment of net zero deforestation by 2020 ('Demanda Generaciones v. Minambiente', 2018). These cases' reliance on scientific evidence supports predictions from Marjanac and Patton (2018) and Ganguly et al. (2018) that climate litigation cases will proliferate as the science of climate attribution improves over time. Here, it is important to clarify the difference between detection and attribution. On the one hand, detection is 'the process of demonstrating that climate or a system affected by climate has changed in some defined statistical sense, without providing a reason for that change' (IPCC, 2014, p. 1763). An identified change is 'detected in observations if its likelihood of occurrence by chance due to internal variability alone is determined to be small' (IPCC, 2014, p. 1763). On the other hand, attribution is 'the process of evaluating the relative contributions of multiple causal factors to a change or event with an assignment of statistical confidence' (IPCC, 2014, p. 1763). Both are important for establishing the threat of rapid and slow onset events caused by climate change. However, attribution increases the chances of the cases' success. Additionally, these cases reveal the importance of international climate agreements and obligations to climate litigation and show that litigation can be used to hold countries accountable to their NDCs and commitments communicated through other policy instruments. Thus, in these cases, climate litigation complements the multilateral process rather than provides an alternative to it (see Gupta, 2010; Peel & Lin, 2019).

Though the science of climate change was used to provide the basis for the plaintiffs to argue that the current actions – or inaction – of governments have resulted (and will result) in the increased severity of climate impacts, the cases appear to focus more on the impacts of rapid onset events than slow onset events. In *Urgenda,* and in citing the future 'irreversible consequences' of climate change, the Dutch court 'gave a judgment that was based on the need to limit the rise of global temperatures to below 2°C above pre-industrial levels' (Sands, 2016, p. 33). However, *Juliana* and *Demanda* both sought a legal ruling to mitigate emissions and reduce the potential and severity of future catastrophic climatic events. The emphasis on 'catastrophic climatic events' is not surprising and is consistent with understandings and interpretations of the impacts of rapid onset events (see Porfiriev, 2015; Weber & Stern, 2011). It is generally more straightforward to 'prove' the devastating impacts of extreme weather events, which occur on a shorter timescale (see Mechler et al., 2020; van der Geest & Warner, 2020). Slow onset events, occurring over a longer time scale with impacts that may not be immediately 'visible', often receive less attention than rapid onset events in the international climate regime, although rapid onset events are often also insufficiently addressed (see

James et al., 2019; Kehinde, 2014; Weir & Pittock, 2017). However, climate justice requires a focus on slow onset events because they can likely cause more significant harm in the future due to the temporal scale of climate change (see Robinson, 2020; van der Geest & Warner, 2020, among others). Litigation cannot significantly address this issue currently because of challenges in proving these connections. However, as improvements in climate attribution science may support an expansion in litigation (Marjanac & Patton, 2018), causation and causality are crucial. And as Verheyen (2015, p. 161) rightfully points out, 'causation' and 'causality' are scientific and not legal terms, and the convergence of 'theories of science, philosophy and law' requires, among other things, that national- and subnational-level courts continue to acknowledge and/or decide that anthropogenic climate change is real. This will strengthen the precedence for causation in relation to tort (i.e. a wrongful act or an infringement of a right (other than under contract) leading to civil legal liability), public nuisance (i.e. an act that is illegal because it interferes with the rights of the public generally), and proportional liability (Verheyen, 2015), which will, in turn, strengthen the role, influence, and/or effectiveness of litigation in climate governance.

Type of justice

The three cases pursue intergenerational, procedural, recognition, and distributive justice. They do not pursue other types of justice – compensatory, restitutive, or corrective – as they centre on future and preventative measures for these injustices, and not on remedial gain. Despite this, these other types of justice have been pursued in other cases, although generally unsuccessfully (see Liszka, 2010 for a discussion of e.g. Kivalina v. ExxonMobil, 2008; Exxon Shipping v. Baker, 2008). Alternatives to climate litigation are, therefore, necessary to support these other types of justice, through which liability and compensation would perhaps be easier to establish (Faure, 2016; Gsottbauer et al., 2018).

All three cases highlight climate change as a threat to future generations, thereby seeking to advance intergenerational justice. *Urgenda* called for 'the protection of our children, grandchildren and the generations of Dutch citizens after them' ('Urgenda Foundation v. State of the Netherlands', 2015, p. 20). Although the case was decided based on threats to current residents, as the Supreme Court excluded future generations in its deliberations, the decision benefits future generations as intergenerational justice was indirectly supported. *Juliana* and *Demanda* both focus on the rights of youth and future generations. The fact that they were heard – *Juliana* was filed by 21 youth plaintiffs and *Demanda* by 25 young people ages seven to 26 – suggests the courts' support for young people challenging government infringement on rights relative to climate change on behalf of themselves and future generations. The decisions are consistent with previous rulings, for example, *Mendoza et al. v. Argentina* in 2008, which required the Argentinian Government 'to improve the residents' quality of life […] and prevent damage with a sufficient and reasonable degree of predictability' (cited in Lorenzetti, 2017, p. 14). These and other cases help illustrate how litigation that is based on recognizing the long-term effects of climate change can be used as a policy tool to advance intergenerational justice. These three cases also provide anecdotal evidence that youth plaintiffs have taken a central role in many climate litigation cases, fighting for intergenerational justice and sufficient climate action by governments and corporations.

The three cases also advance procedural justice but to a limited extent. Young people were included in the judicial processes that will impact their future, but only those in the countries in which the cases were filed – Netherlands, United States, and Colombia. Procedural justice requires that all stakeholders are included in the decision-making process (Khan et al., 2020) and several human rights instruments have been created to support this. *Urgenda*, for example, using the ECHR, was additionally in line with the 1998 Aarhus Convention, which established rights including 'public participation in environmental decision-making' and 'access to justice' (Aarhus Convention, 1998, Preamble) – forming the basis of stakeholder inclusion. These decisions help reshape the environmental rights of youth in other countries given the global impact of emissions reductions, but the three cases do not deliver procedural justice at the global level due to their domestic nature. Yet, stakeholders have a right to be included – they hold governments accountable against violations of these rights through elections and litigation. A wider incorporation of stakeholders in these processes supports better governance by demanding government accountability. This is evidenced in the incorporation of youth in litigation

to support intergenerational justice and, to an extent, procedural justice. Yet, the role of litigation may be confined to holding governments accountable to legislative commitments (i.e. ECHR, US Constitution, the Colombian 'tutela'), and not on other justice concerns (i.e. the fair allocation of costs and benefits among all concerned parties). This also brings into question another fundamental issue – whether every claimant has legal standing. According to Johnston (2016), human rights and the long-term nature of climate change disproportionately threatening future generations are linked to intergenerational justice, justifying youth's legal standing. Albers (2018) argued that conditions of standing are met by youth plaintiffs because of the significant climate impacts that they will endure and the understanding that these risks could be reduced through court. Thus, young people have strong potential as plaintiffs and their legal standing can be substantiated. However, in *Juliana*, a decision was handed down that, although the plaintiffs' rights were indeed being infringed upon, the case was beyond the power of the court and that it should instead be addressed by the executive and legislative branches of government ('Juliana v. United States', 2020). This further highlights the limits upon legal issues over which a court can exercise its judicial authority, or justiciability. Only *Urgenda* clearly advanced distributive justice – the court forced the Dutch Government to be more ambitious to uphold its 'fair share' of climate mitigation action. The other cases struggle to support distributive justice. This incongruity between the cases shows the complexity and ambiguity of the extent to which distributive justice may be accounted for. Khan et al. (2020, p. 265) explain that 'the post-Paris context is characterized by a neglect of distributive justice as a guiding principle'. Further, many distributive impacts of climate change are global in scale and, therefore, not compatible with the confines of domestic litigation (Gupta, 2010; Osofsky, 2010; Vanhala, 2013). The disconnect between domestic and international law and policy, therefore, has major implications for litigation's role in advancing distributive justice (Bouwer, 2018; Klinsky, 2018; Setzer & Vanhala, 2019; Wewerinke-Singh & Salili, 2020). Its reach is limited by its high cost that serves as a barrier for the poor and minority groups who, due to limited resources, have greater difficulty in proving the unequal distribution of climate impacts and that the actions of governments and corporations violate their rights (Badrinarayana, 2009; Peel & Osofsky, 2018; Wewerinke-Singh & Salili, 2020). Despite this, litigation can promote distributive justice both domestically and in international courts and tribunals, as shown by *Urgenda*. In fact, it should be a feature of international climate law and policy and be incorporated more concretely into future international environmental agreements (see discussions in Klinsky & Dowlatabadi, 2009; Okereke & Coventry, 2016; Schlosberg, 2004).

Again, *Urgenda* was the only case that sought to advance recognition justice. The plaintiff asked the court to recognize and establish that the State had a legal obligation to prevent serious harm to the environment and to take care of Dutch citizens. The court's response was 'based on the 'open standard' of the Dutch Civil Code' (Cox, 2016, p. 155). In this respect, the court 'kept in mind the discretionary power accorded to the State and its bodies in the determination and execution of government policy, including matters relating to the climate' (Cox, 2016, p. 155). It, however, ruled that the 'stipulations included in the UNFCCC, the Kyoto Protocol, and the no-harm principle of international law do not have a binding force toward citizens (private individuals and legal persons)' (Cox, 2016, p. 155). This directly ties recognition justice to responsibility, liability, and ultimately, compensation given that, in the absence of sufficient 'measures that would evoke responsibility and incur liability' by countries, specifically wealthy ones, recognition justice is crucial in domestic litigation to acknowledge and attack inequalities (Khan et al., 2020, p. 253). This raises the question of how responsibility can be operationalized and liability established through climate litigation (see Gsottbauer et al., 2018; Lees, 2017; Surminski & Lopez, 2015). The principle of CBDR+RC, as underscored in the UNFCCC, Kyoto Protocol, and Paris Agreement, has attempted to address this issue. Yet, climate litigation on the domestic level can only directly impact domestic action and cannot help enforce CBDR+RC on a broader scale (see Frank et al., 2019; Lees, 2017; Wallimann-Helmer, 2015). However, there is scope for transnational judicial dialogue such as the use of the *Urgenda* decision in the interpretation of other cases (Paiement, 2020). Our three cases show the complexity and uncertainty of outcomes produced by the confines of the details of a case, the argued reach of claims, and the types of justice that need to be addressed.

From our analysis, climate litigation better serves some types of justice (e.g. intergenerational) than others (e.g. distributive). This highlights its limitations relating to justiciability–the authority of the court and its role relative to other branches of government. This stems from the question of separation of powers, which is

evident in both *Urgenda* and *Juliana*. Some legal scholars have criticized the Dutch Supreme Court's decision in favour of *Urgenda* as overstepping its constitutional boundaries and disregarding separated powers (Burgers et al., 2019; Huang & Tigre, 2016). Other analyses of the case have supported the Court's action but contention remains. Burgers et al. (2019, p. 223) determined that, 'although parts of the decision could have been motivated in more detail […], the Court applied the law correctly and that neither the separation of powers, nor the political question doctrine were infringed'. Justiciability has challenged *Juliana* throughout the court system (see related discussions in Gaynor et al., 2010; Wilkins, 2011). The Ninth Circuit Court's recent ruling that the decision was beyond the authority of the judicial branch and should be reserved for the executive and legislative branches also reveals its limitations ('Juliana v. United States', 2020). Justiciability remains a barrier to courts effectively examining and ruling on climate cases, potentially complicating the use of this policy tool to advance justice. Connected to this is the issue of standing. In *Urgenda*, the organization's standing was accepted under a Dutch civil law that allows non-governmental organizations to represent collective interests in court (Loth, 2018; 'Urgenda Foundation v. State of the Netherlands', 2019). However, the 886 claimants did not have standing because it was held that 'their claims cannot lead to a decision other than the one on which Urgenda can rely for itself' and so they lack 'sufficient (own) interests besides Urgenda's interest' (Cox, 2016, p. 150). In *Juliana*, the adequacy of the plaintiffs' claims in regard to injury or causation was denied. However, it can be said that the global nature of climate change itself and the distributive nature of its impacts create this dilemma because of the difficulty of establishing a causal connection between unlawful action, and injury or harm caused by climate change (Meyer & Roser, 2006; UNEP, 2017).

Harm

Each of the cases address prospective – or future – harm, which is based on the projected increases in intensity and frequency of climate change impacts, generally at the national or subnational level. The plaintiffs across the three cases argue that environmental harms have explicit negative consequences on their ability to live freely (see Levy, 2019; Roy & Woerdman, 2016; Toussaint, 2020), and thus violate their human rights. Generally, harms include threats to surrounding ecosystems, human health, and economic well-being. A focus on prospective harm further centres the cases on intergenerational justice. The specific links to injustices established by these cases – conveyed in the form of harms – exhibit the link between climate change and future well-being and government (in)action to broaden the current scope to include a focus on similar rights for the future. Furthermore, the cases' domestic focus provides an alternative to multilateral action, which has often been inconsistent, non-binding, and slow. Thus, domestic legal action can prove to be a crucial driving force for climate justice.

While it may be easier to prove past harm, the focus on prospective harm highlights further complications for the path to justice. Litigation has traditionally addressed situations from the past while our cases centre on current actions causing future harm (see Levy, 2019; Roy & Woerdman, 2016; Toussaint, 2020). Generally, the role of courts revolves around resolving particular disputes, remedying wrongdoings, and/or developing international law but they may also be 'purveyors of legitimacy' to create understanding of what is required or currently inadequate (Sands, 2016, p. 24). Compared to past harms, prospective claims raise the question of what the plaintiffs can substantively prove, especially using scientific evidence. Defendants often challenge the legal standing of plaintiffs on the basis of the uncertainty surrounding climate and climate-related harms. This argument, however, does not take into account that 'scientific advancements in evidence increasingly captures the likely relationships between particular climate phenomena such as floods, and anthropogenic emissions' (Johnston, 2016, p. 38). Causation and attribution pose challenges in climate litigation cases. The delayed nature of climate impacts creates challenges for proving specific harm, while the causal connection between specific emitters, for example, and victims, such as future generations, is complicated by the numerous contributors and time lags (Albers, 2018). This further challenges the advancement of intergenerational justice, which is dependent on these future claims. These issues of ambiguity and uncertainty aside, litigation still has the potential to address and utilize prospective harm to support claimants' climate accusations because as climate science, particularly attribution science, progresses, it is creating more of a basis to support these claims.

Conclusions

In this paper, we developed the four-component OATH (Objective, Associated climate impact, Type of justice, Harm) human rights-based framework that primarily extends Toussaint (2020) and Toussaint and Martínez Blanco (2020). We applied it to three cases – *Urgenda*, *Juliana*, and *Demanda* – in order to weigh in on whether litigation can be used as a policy tool for advancing justice in the aftermath of the 2015 Paris Agreement. Within the global climate regime, these three cases are influential; their progress and achievements can pave the way for future cases seeking to hold governments accountable to their NDCs and other commitments. From the application of OATH, we draw four specific insights, which are aligned with each of the four components of the framework and which are summarized below.

The first insight relates to case objective – our findings suggest that there could be an overrepresentation of mitigation cases within climate litigation. Our three cases focused on governments' failures to mitigate GHG emissions and attempted to force greater mitigation action and seek to prevent future harms, rather than redress current and past harms. This would confirm the findings of Peel and Lin (2019) and Peel and Osofsky (2020) that there is a current dominance of mitigation cases. These authors further argued that the failure of international environmental agreements to incorporate and fully consider non-mitigation-related targets and mechanisms for adaptation and compensation contributes to the emphasis (Peel & Lin, 2019; Peel & Osofsky, 2020). Therefore, if climate litigation is to be used as a tool to secure climate justice, an expansion into cases focused on adaptation and other climate-related areas will be crucial.

The second insight relates to associated climate impact – our findings show that establishing legal causation/causality and attribution remains an impasse to the full and complete use of litigation in the pursuit of climate justice. It was easier for the cases to provide evidence of adverse impacts (i.e. detection) than to attribute the impacts to climate change. Verheyen (2015) and Pfrommer et al. (2019) are among those works that grapple with this issue. Causation/causality and attribution – both interdisciplinary in nature – are complex in regard to anthropogenic climate change because of its multitude of potential actors and ambiguous timeline (Verheyen, 2015). The recognition by courts of anthropogenic climate change and its impacts is crucial to establish precedence for causation (i.e. tort, public nuisance, and proportional liability) (Verheyen, 2015). This will ultimately increase the utility of litigation in the field of climate governance and policy.

The third insight relates to type of justice – our findings show that climate litigation better serves some types (e.g. intergenerational) than others (e.g. distributive). Here, the issue of scale creates a paradox. At one level, the cases we analyzed were premised on domestic issues, while distributive justice is an inherently international issue. Thus, these cases provide a pathway to set the framework for more distributive justice-oriented international policy but do little substantively to achieve distributive justice within their parameters. Yet, they have the potential to indirectly advance distributive justice, as more countries continue to establish these inherent rights and fight to uphold those values on the international stage. For distributive justice to be achieved, similar cases must be litigated in an international court or tribunal. At another level, while the Paris Agreement enables the use of domestic action to achieve global objectives and the use of litigation as enforcement (Bouwer, 2018), 'national legislatures bear the primary responsibility to give legal effect to the commitments undertaken by States under the Paris Agreement' (Carnwath, 2016, p. 9). In the absence of an international oversight authority or significant legally binding measures, domestic legal action is likely to remain the primary avenue for advancing climate action through the courts. However, there has been less climate litigation in the Global South where adaptation and compensation needs are greater, where stakeholders are less capable of pursuing legal action, and where governments are less equipped to implement solutions because of capacity constraints (following Khan et al., 2018; Peel & Lin, 2019; Robinson, 2018, 2020).

Our fourth insight relates to climate change-induced harm – it may be easier to prove that future climate harms will result from a failure to mitigate than to attribute recent individual property-damaging extreme weather events to climate change. While it may strengthen the arguments for present adaptation needs, it may reinforce the overrepresentation of mitigation cases in climate litigation, and weaken the arguments for compensation for past harm. Though there have been great advances in attribution science (e.g. see Harrington & Otto, 2018; Huggel et al., 2016), broader challenges will remain in quantifying the extent to which individual events are caused by climate change (Marjanac & Patton, 2018). One can expect that the general field of climate

litigation will be guided by scientific developments as 'increasingly, climate scientists are being asked to translate scientific findings on the attribution of extreme weather events to climate change into useable knowledge for courts deciding causation issues' (Peel & Osofsky, 2020, p. 9).

Finally, climate litigation has become increasingly important for the direction of the climate movement and the advancement of climate justice as it brings increased attention to climate issues. Cases such as *Urgenda*, *Juliana*, and *Demanda* demonstrate the power of climate litigation in addressing intergenerational injustice by forcing governments to take sufficient action. *Juliana* has been critical to the growth of the worldwide youth-centred climate movement (Solnit, 2018), while *Urgenda* and *Demanda* successfully led to tangible action by nations to protect human rights, with the latter specifically focused on rights to a healthy environment. *Urgenda* further shows the potential of climate litigation for increasing mitigation ambition. But although climate litigation can be used to hold governments accountable to commitments and support climate justice, it has less influence on determining global commitments relative to CBDR+RC, as these decisions currently reside in international negotiations and agreements. Additionally, issues relating to justiciability, standing, causation, attribution and the application of the CBDR+RC principle must be addressed at each step of the way. So as the ambition and progress of climate litigation continue to grow, it must be combined with other forms of climate action – '[s]trong legal pressure and non-punitive pathways for reparations or institutional change can be used in tandem to coerce recalcitrant, powerful, actors to co-operate with changes needed for long-term regime legitimacy' (Klinsky, 2018, p. 762). Strengthening these avenues within international law and agreements will better advance climate justice in a post-Paris world.

Acknowledgements

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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