

III.2

Climate Litigation as Global Law

BY OTTO SPIJKERS*

Abstract

This chapter provides an analysis of the actual and potential contribution of climate litigation to the further development of global law. It identifies certain general trends that can be deduced from the already existing examples of climate litigation that may shape the evolution of global law applicable to the global community's efforts to jointly combat climate change. Included in the scope of the analysis of this chapter are issues as diverse as the relationship between the courts and the lawmakers, as well as the role of scientific evidence in judicial reasoning. This chapter also addresses the role of the courts in interpreting the human right to a healthy environment and its application in the context of climate change. Finally, an analysis is provided of the legal representation of the rights and interests of climate migrants and climate refugees, of people living abroad, of future generations, and of nature itself.

I. INTRODUCTION

This chapter provides an analysis of the actual and potential contribution of climate litigation to the further development of global law. Before the world's great plurality of domestic, regional, and global courts, tribunals, and other rule-compliance mechanisms, various individuals and foundations use (some of) the rules of global law as basis for their claims against those they hold responsible for not doing enough to combat climate change and/or mitigate the negative consequences of this global phenomenon. They do so, not in their own personal and particular interest, but in the interest of the international community as a whole, both present and future generations. We can refer to this as public interest litigation based on global law. It is the duty of the local, regional, and global courts, when faced with

* Otto Spijkers is Full Professor of International Law at the China Institute of Boundary and Ocean Studies (CIBOS) and at the Research Institute of Environmental Law (RIEL), as well as Founding Staff Member of the International Water Law Academy (IWLA) of Wuhan University (<http://www.cibos.whu.edu.cn/>).

such claims, to fulfil their role as judges in the global community, i.e., to apply the norms of global law to a particular set of facts, and thereby to contribute to the harmonious development of this law. Particular attention will be paid to the way in which these different courts cross-fertilize, influence, and learn from each other when applying norms of more or less the same substance. This chapter focuses on a particular type of public interest litigation, namely, climate litigation.

The chapter is structured as follows: after this introduction (Section I), a brief *tour d'horizon* of global law is provided (Section II). Different scholars apply this term differently, and thus it might be helpful to explain how the term is understood in this chapter. From a brief description of the work of the founders of global law, i.e., Giuliana Ziccardi Capaldo (B), Rafael Domingo (C), and Neil Walker (D), some general characteristics of the global law tradition will be deduced (E). By way of illustration, and to get to grips with the term, the possibility of global *water* law is briefly explored (F). The chapter then turns to climate litigation (Section III). After an explanation of the term and a brief introduction of the main examples of climate litigation (A), this chapter lists certain general trends that can be extracted from these examples, and that may shape the evolution of global law relating to the climate in the future. Section III first addresses the relationship between the courts and the lawmakers (both at the domestic, regional, and global levels), and the relationship between the courts and the exact sciences and scientific evidence (B and C, respectively). It then turns to the role of the courts in shaping global legal norms, in particular the emerging human right to a healthy environment, and the legal recognition of climate migrants and their rights (D and E). The analysis then turns to the recognition of extraterritorial duties of states under global law that have a bearing on climate change (F). Finally, the analysis addresses the most creative and progressive aspect of climate litigation, namely, the issue of legal representation of future generations and of nature itself (G and H). The chapter ends with a brief conclusion and look into the future (Section IV).

II. GLOBAL LAW

A. Introduction

Because this is the twentieth anniversary volume of the *Global Community Yearbook of International Law and Jurisprudence*, it is appropriate to briefly revisit the essence of global law, before turning to the main course of this chapter: the role of climate litigation in the further development of that global law. This Section (II) therefore provides a succinct summary of the theories and thoughts of the founders and key thinkers of global law. The aim is to draw some general lessons from their theories on what typifies the global law tradition, and to then use this to look for traces of global law in climate litigation in Section III of this chapter.

B. Giuliana Ziccardi Capaldo

Giuliana Ziccardi Capaldo introduced me to global law in her seminal book, *The Pillars of Global Law*.¹ The book makes the argument that certain fundamental shifts in international society highlight the “public” dimension of international law. The book describes the emergence of:

1. Rules that give structure and a degree of institutionalization to a close-knit web we call our global community;

¹ GIULIANA ZICCARDI CAPALDO, *THE PILLARS OF GLOBAL LAW* xiii (2008), republished by Routledge, Taylor & Francis (2016).

2. Rules that seek to protect common values, interests, and goods (such as world peace and security, environmental protection, human dignity, self-determination of peoples, etc.);
3. Rules that establish global compliance mechanisms and procedures.

A fundamental question is whether these rules are autonomous enough of traditional international law to be called global law. After careful and rigorous analysis, Ziccardi Capaldo concluded that the international legal order was developing, slowly but certainly, into a truly global legal system. This global law system could exist well alongside the system founded on agreements between sovereign and independent states, i.e., what could be referred to as the traditional international law. The emerging global law constituted the purely “public” dimension of the global legal system and would eventually mature into a new legal organization of the world.² Ziccardi Capaldo presented global law as a body of harmonizing rules, constituting the foundation of a new dynamic and pluralist global system, involving the interaction and integration between multiple sources of law and institutions of governance.³

To further promote the development of global law, the *Global Community Yearbook of International Law and Jurisprudence* was first published in 2001. From the outset, efforts were made in this *Yearbook*, which now celebrates its twentieth anniversary, to study the creation of a coherent legal system for a universal human society. To this end, current and future developments in international law and global policy were analyzed, and new insights presented on global justice. A special place was reserved for the analysis of contributions, by judicial rulings, to the building of this new global legal order.

From 2010 onwards, the *Yearbook* focused particularly on jurisprudential cross-fertilization, i.e., the emergence of interconnections between the rulings of various domestic, regional, and international courts, tribunals, and other norm-shaping bodies and institutions.⁴ The *Yearbook* thereby encouraged the emergence of a community of judges, to facilitate judicial cooperation, urging courts to further harmonize the fundamental rules of global law. The present chapter seeks to contribute to these efforts, by studying climate litigation, undertaken by courts, tribunals, and other rule-compliance monitoring bodies operating at the domestic, regional, and global levels, and to demonstrate how these different levels of the judiciary interact and cross-fertilize.

In a blog post of 2015, Ziccardi Capaldo described the task and responsibility of the judge and the scholar in the further development and evolution of global law. Since this chapter looks exactly at the role of these two actors, it is apt to quote the relevant parts of that blog post here. First, on the duty of courts, Ziccardi Capaldo noted the following:

It is the duty of the courts, in fulfilling their role of applying the norms of international law, to contribute to its harmonious development eliminating the points of conflict which may arise from the interplay between international rules, or between these rules and domestic laws, as well as from the coexistence of different international courts and tribunals.⁵

² ZICCARDI CAPALDO, *supra* note 1, at xvii.

³ Giuliana Ziccardi Capaldo, *Managing Complexity Within the Unit Of the Circular Web of the Global Law System: Representing a “Communal Spider Web,”* 11 GLOBAL COMMUNITY YILJ 2011-I (G. Ziccardi Capaldo General ed.) xvii–xxii (2012).

⁴ On this theme, see also Antônio Augusto Cançado Trindade, *Les tribunaux internationaux et leur mission commune de réalisation de la justice: développements, état actuel et perspectives*, 391 HAGUE ACADEMY COLLECTED COURSES/ RECUEIL DES COURS DE L'ACADÉMIE DE LA HAYE 72–91 (2018).

⁵ Giuliana Ziccardi Capaldo, *What Is Global Law?*, OUPblog, 10 August 2015, at <https://blog.oup.com/2015/08/what-is-global-law-jurisprudence/>.

As will be demonstrated in Section III below, in climate litigation the various courts attempted to be consistent with each other, to interpret-away various apparent inconsistencies, and to elucidate aspects of the relevant (international) law that remained unclear. They felt responsible, not only to settle a controversy put before them, but also to provide further clarity and coherence to the law relating to climate change.

In the same blog post, Ziccardi Capaldo also made some remarks about the responsibility of global law scholars:

Legal scholarship [...] may contribute to the determination of rules of law. It is for international law scholars [to] follow the evolution of the inter-State society towards a global society governed by a law expressed by a wide variety of actors and not only by States. Their basic task is to provide tools to identify, from the great variety of international practices in political and jurisprudential contexts, a uniform set of legal rules and procedures designed to manage global interests and goods, established for the purpose of institutionalizing governance mechanisms and procedures, defining and allocating powers to the global level, and creating authorities or bodies exercising functions of a public nature.⁶

Section III of this chapter aims to make a small contribution to fulfilling this formidable and fundamental task, by distilling some general rules and ideas from the examples of climate litigation we have presently at our disposal, hoping that these might shape the climate litigation of the future, and ultimately guide the lawmaking and policymaking in this field.

C. Rafael Domingo

Giuliana Ziccardi Capaldo is not the only scholar writing on global law. Another global law theory is presented to us in Rafael Domingo's book of 2010, entitled *The New Global Law*.⁷ In this book, Domingo argued that the time of the dominant sovereign states was over, and that the time of a world community of individuals had arrived.⁸ The individual, not the state, was the cornerstone of the new global law. According to Domingo, humanity should best be seen as the global amalgamation of individuals, not of states. Therefore, global law had to find its normative foundation in that individual person, not in the state. In fact, it was precisely the "personification of the State," Domingo claimed, that was at the root of the legal dehumanization and objectification of the individual.⁹ A new global law therefore had to find its normative basis in what was most intrinsically human, and that was, according to Domingo, the concept of human dignity. This is consistent with Ziccardi Capaldo, who also saw human dignity as the essential value of global law.¹⁰

Domingo wanted to say farewell to what he believed to be outdated notions, such as "State," "sovereignty," "territoriality," and "nationality."¹¹ Domingo blamed the uncritical acceptance of these notions for the dysfunction of international organizations. Intergovernmental organizations, such as the United Nations, were hierarchical, bureaucratic, slow, and dominated by a few powerful states.¹² He therefore proposed replacing the United Nations with a new organization, called the "United Humanity." This new

⁶ *Id.*

⁷ RAFAEL DOMINGO, *THE NEW GLOBAL LAW* (2010).

⁸ *Id.*, at 85–86.

⁹ *Id.*, at xvi.

¹⁰ Ziccardi Capaldo, *supra* note 3, at xviii.

¹¹ Specifically on "nationality," see DOMINGO, *supra* note 7, at 106–107.

¹² *Id.*, at 92.

organization would have a world parliament and a world tribunal as its main organs. The world parliament had to work based on the subsidiarity principle, i.e., it would only deal with issues affecting humanity as a whole and leave local issues to local forms of governance.¹³

Domingo's thinking and theorizing was not always entirely consistent. In a later publication, he indicated that he did not literally call for a world government, with a world parliament. Instead, he envisaged a global community consisting of a great plurality of actors: individuals and groups, political organizations, municipalities and metropolises, peoples and nations, businesses, civil societies, churches and other religious organizations, and supranational institutions. The law that governed the relationships between this great plurality of actors—referred to as global law—needed to focus on the protection and promotion of the rights and interests of the individual person, because, argued Domingo, ultimately the “global human community” was composed of individuals.¹⁴ On this latter aspect, he was thus highly persuaded, committed, and consistent throughout his writings.

D. Neil Walker

In 2013, Neil Walker was interviewed by Shavana Musa and Eefje de Volder.¹⁵ They asked him how his then nascent global law theory, on which he was writing a book at that time, could be distinguished from already existing theories of transnational, international, and/or supranational law.¹⁶ Walker excellently described the essence of the latter three types of theories, and persuasively explained why they failed to convince. For example, he defined international law as “the old-fashioned term for the law between sovereign States.”¹⁷ Walker had great difficulty, on the other hand, defining his own term and introducing his own alternative theory, i.e., global law.

In 2015, Neil Walker published the book he had been working on, entitled *Intimations of Global Law*.¹⁸ What made a particular legal rule or legal system part of global law was, according to Walker, its ambition towards global application.¹⁹ He investigated the many ways in which the phenomena of global law and globalization overlapped and influenced each other. Global law did not consist only of the rules established through what we traditionally refer to as the formal sources of international law, i.e., treaty-making, formation of customary international law, and crystallization of general principles of international law.²⁰ Walker believed that a domestic district court in a particular state was perfectly capable of issuing a ruling in which principles of global application were used as basis for that decision.

¹³ *Id.*, at 144–146.

¹⁴ Rafael Domingo, *Gaius, Vattel, and the New Global Law Paradigm*, 22 *EUROPEAN JOURNAL OF INTERNATIONAL LAW* 641 (2011). See also Rafael Domingo, *Global Law and the New Global Human Community*, 13 *REVISTA BRASILEIRA DE DIREITO* 27–39 (2017).

¹⁵ Shavana Musa & Eefje de Volder, *Interview with Professor Neil Walker: Global Law: Another Case of the Emperor's Clothes?*, in *REFLECTIONS ON GLOBAL LAW* (Shavana Musa & Eefje de Volder eds., 2013).

¹⁶ See, e.g., Harold Koh, *Why Transnational Law Matters*, 24 *PENN STATE INTERNATIONAL LAW REVIEW* 745 (2006). Specially on transnational environmental law, see Veerle Heyvaert & Leslie-Anne Duvic-Paoli, *The Meanings of Transnational Environmental Law*, in *RESEARCH HANDBOOK ON TRANSNATIONAL ENVIRONMENTAL LAW* (Veerle Heyvaert & Leslie-Anne Duvic-Paoli eds., 2020).

¹⁷ Musa & de Volder, *supra* note 15, at 6.

¹⁸ NEIL WALKER, *INTIMATIONS OF GLOBAL LAW* (2014).

¹⁹ *Id.*, at 18.

²⁰ See Article 38 of the Statute of the ICJ, which lists international conventions, international custom, and general principles of law as the sources the Court must apply when settling the disputes submitted to it in accordance with international law.

National judges were often aware of the possible impact their ruling could have on the development of global law. According to Neil Walker, any rule or judgment, claiming to have global validity or application, could be regarded as part of global law, even if it *formally* was merely a rule or ruling of national law.²¹

E. General Characteristics of Global Law

The global law theories of Giuliana Ziccardi Capaldo, Rafael Domingo, and Neil Walker are quite different from each other.²² At the same time, we do find some striking similarities, and their *noyau dur* does overlap to a considerable extent.

The most obvious and fundamental of those similarities is that all three theories argue that the state is no longer the unchallenged and undisputed maker and enforcer of the law regulating global society. States are but one of many actors that together constitute our informally organized global system, which is presented as a network or web.²³ Ziccardi Capaldo uses the metaphor of a communal spider web:

The image of the “communal spider web”—built by a variety of spider species working together in the same area—seems to be the best for representing the legal system of a complex multi-polar society (namely, the global community). On a par with the spider’s web, global law is elastic enough to integrate the heterogeneous elements of the various and different legal orders into a unitary framework.²⁴

Various actors work on their part of the web, and together they make what we refer to as global law.

Second, all three global law theories notice—and welcome—a growing influence of domestic and supranational judicial bodies, such as international and/or regional courts, tribunals, and compliance monitoring bodies and institutions, in the shaping of global law.

Third, all three theories use more or less the same approach or analytical framework, i.e., they analyze the way in which all these globally operating actors—such as states, individuals, corporations, non-governmental organizations, and international organizations—play their part in one nascent or emerging global legal system, how they influence each other, and on what legal basis that system operates. All three theories identify the common values, goods, interests, and principles that constitute the foundation for this global legal system’s legitimacy. Global law, seen as a “constitutional phenomenon caused by the impact of globalization on international law,”²⁵ provides a legal foundation for the three functions of governance:

- Global rule-formation (the legislative function);

²¹ WALKER, *supra* note 18, at 18–24.

²² The focus on these three theories of global law is not to suggest that other scholars writing on global law have not contributed any interesting ideas. See also Frank J. Garcia, *Law and Globalization: Conceptual Issues*, 33 TLI THINK! (2016). This chapter further wishes to avoid giving the impression that global law has no intellectual prehistory. It *does*, see, e.g., Pablo Antonio Fernández-Sánchez, *From Totus Orbis to Global Law*, 15 GLOBAL COMMUNITY YILJ 2015 (G. Ziccardi Capaldo General ed.) (2016).

²³ See also Morag Goodwin, *What I Talk about When I Talk about Global Law*, 17 TILBURG LAW REVIEW 270–271 (2012).

²⁴ Ziccardi Capaldo, *supra* note 3, at xxi–xxii.

²⁵ Giuliana Ziccardi Capaldo, *Global Law as a Constitutional Phenomenon*, 15 GLOBAL COMMUNITY YILJ 2015 (G. Ziccardi Capaldo General ed.) 3–6 (2016).

- Global law-enforcement (the executive function);
- Global justice, with a central role for the International Court of Justice (ICJ) as a global court, being the guardian of the world's values and authorized to check the acts of the global rule-makers and rule-enforcers on their constitutionality (the judicial function).²⁶

Global law theory does not call for the resurrection of a world government in the strict sense of the term. It refers to a much looser patchwork quilt—or web—of a great plurality of actors and includes different types of judicial rulings and legal rules of public and private law character, and of national, regional, and international law character.²⁷ Global law scholars study this complex transnational and multilateral decision-making process aimed at protecting common interests and promoting globally shared values. Global law scholars guide the world towards a more organized and better integrated global legal system, with more streamlined decision-making processes, more effective and robust enforcement strategies, and clearer and denser interrelations between various normative systems co-existing in this world. They call for a “transition from an inter-State legal system of a ‘private’ nature, as it was in classical international law, to a world constitutional system of a ‘public’ character.”²⁸ Global law scholars witness the emergence of a global constitution:

oriented towards a structuring process for a universal human society (i.e., global community) and the protection of common values and goods (such as world peace and security, fundamental rights of individuals and peoples, collective management of common human beings, etc.) with objective safeguard mechanisms and procedures.²⁹

Fourth, all three global law theories are theories about *law*. Global law theories can be distinguished from global governance theories.³⁰ It is the focus on *legal* rules that distinguishes the former from the latter.³¹ Global law scholars have referred to these legal rules and procedures that organize multilateral decision-making processes as an “integrated system” that “directs the organization of global power, regulates fundamental social functions, and guarantees the world's governance.”³²

²⁶ See Chapter 1, 2, and 3, respectively, of ZICCARDI CAPALDO, *supra* note 1, at 21–132.

²⁷ See also Patrick Capps & Dean Machin, *The Problem of Global Law*, 74 MODERN LAW REVIEW 794–810 (2011). This is a book review of NICO KRISCH, *BEYOND CONSTITUTIONALISM: THE PLURALIST STRUCTURE OF POSTNATIONAL LAW* (2010).

²⁸ ZICCARDI CAPALDO, *supra* note 1, at 8.

²⁹ Ziccardi Capaldo, *supra* note 25, at 4.

³⁰ Thomas G. Weiss, *Enhancing the Globe's Governance, Struggling with Research and Politics*, GLOBAL COMMUNITY YILJ 2018 (G. Ziccardi Capaldo General ed.) 959–972 (2019).

³¹ There are scholars analyzing the role of (global) law in global governance, thereby bridging this apparent gap. See, e.g., Eyal Benvenisti, *The Law of Global Governance*, 368 HAGUE ACADEMY COLLECTED COURSES/RECUEIL DES COURS DE L'ACADÉMIE DE LA HAYE 47–279 (2014); and Ramesh Thakur & Thomas G. Weiss, *Global Law and Global Governance: The UN's Role in Filling Gaps*, in GLOBAL COMMUNITY YEARBOOK OF INTERNATIONAL LAW AND JURISPRUDENCE: GLOBAL TRENDS: LAW, POLICY & JUSTICE ESSAYS IN HONOUR OF PROFESSOR GIULIANA ZICCARDI CAPALDO 572 (M. Cherif Bassiouni et al. eds., 2013).

³² ZICCARDI CAPALDO, *supra* note 1, at 10–11, and Chapter 2.

When we analyze climate litigation in Section III of this chapter, and look for traces of global law therein, what exactly do we look for? From the above, we can deduce the following characteristics:

1. Global law consists of rules, that may formally be of international, transnational, regional, or even domestic law character, which together constitute the core of an integrated global legal system.
2. Global law consists of rules, that may formally be of both public or private law, which perform this integrating function and regulate the “public” dimension of an emerging global community.
3. Global law is shaped by judicial decisions of international, regional, or even domestic courts, tribunals, and other rule-compliance monitoring bodies, which aim to integrate the different legal orders around this set of common rules.
4. Global law is shaped by informal cross-fertilization and cross-references between all these different international, regional, and domestic legal systems and courts.

F. Global Water Law

The next step in the development of global law is to apply its theory and analytical framework to specific subfields of international law. As Ziccardi Capaldo metaphorically depicted it, we have different species of spider working simultaneously on one big communal web. This can be illustrated briefly by looking at global *water* law. After this small excursion into water law, we turn to the main course of the chapter: climate litigation as global law (Section III, below).

As early as 1975, an international conference on “Global Water Law Systems” was held in Valencia, Spain. The title of the conference suggests that this was the beginning of the study of global water law. However, the conference’s aim was not to find a common core of globally applicable rules regulating the public dimension of freshwater governance. Instead, the aim of the gathering was to compare different national legal systems, to deduce some best practices therefrom.³³

It was only in 2008, that Joseph Dellapenna and Joyeeta Gupta made a first real attempt to address the question whether there was something like global water law.³⁴ Others followed, such as Ellen Hey and Patricia Wouters.

Wouters argued that there was an emerging obligation for all states to cooperate in the peaceful management of the world’s freshwater resources. This was an obligation *erga omnes*, i.e., an obligation that was owed, not just to the state with whom the transboundary watercourse was shared, but to the entire international community.³⁵

Hey argued that the nature of international water law had fundamentally changed in recent decades, justifying the use of the term *global* water law. The most remarkable change was in the role of the state. The sovereignty of states—and their independent decision-making power—was still central to traditional international water law. But in today’s global water law, argued Hey, states were asked to perform certain tasks and take on certain responsibilities, in close cooperation with a great plurality of other actors. Modern international water law sought to protect the water needs of individuals and groups within society,

³³ See Margaret Biswas & Asit Biswas, *International Conference Discusses Global Water Law Systems*, I ENVIRONMENTAL POLICY AND LAW 160–161 (1975/76).

³⁴ Joseph Dellapenna & Joyeeta Gupta, *Toward Global Law on Water*, 14 GLOBAL GOVERNANCE 437–454 (2008). See also Joseph W. Dellapenna & Joyeeta Gupta, *The Evolution of Global Water Law*, in THE EVOLUTION OF THE LAW AND POLITICS OF WATER (Joseph Dellapenna & Joyeeta Gupta eds., 2009).

³⁵ Patricia Wouters & Dan Tarlock, *The Third Wave of Normativity in Global Water Law*, 23 JOURNAL OF WATER LAW (2013).

rather than the interests of states. This is a typical trait of global water law. International water institutions, such as River Basin Organizations (RBOs), operate—alongside states—as relatively independent actors within this global legal system. It is these characteristics, argued Hey, and the fact that generally applicable rules and standards apply within this global legal system, that justifies the use of the term *global water law*.³⁶

The above describes only the mere beginnings of the weaving of the web of global water law. Clearly, the water spider has only just begun its work, and much weaving remains to be done.

III. TRACES OF GLOBAL LAW IN CLIMATE LITIGATION

A. Introduction

From our analysis in Section II, we extracted four characteristics of global law. First, global law consists of rules that form the essence—or common core—of an integrated global legal system, regardless of whether they are formally rules of international, transnational, regional, or domestic law. Second, global law consists of “public” rules, i.e., rules that regulate the public domain of the global community, but formally, these could be rules of both public and private law. Third, global law is shaped by those judicial decisions of international, regional, and domestic courts and tribunals, that provide clarity and coherence in the way in which the public domain of the global community is—and ought to be—governed. Such rulings could very well be issued by a local district court in a particular state. Fourth and finally, global law is shaped by a dense cross-fertilization and cross-referencing between all these different international, regional, and domestic legal systems, rules, and rulings. They might formally be unrelated to each other, but in practice they constantly refer to each other, in a joint effort to find the most persuasive content, application and interpretation of the same or basically similar rules. As we shall see in this part of the chapter, all four of these characteristics of global law are very much present in the various examples of climate litigation.

Before we get to an analysis of the examples, the term “climate litigation” needs to be defined.³⁷ In this chapter, the term “climate litigation” refers to rulings establishing responsibility for a failure to prevent climate change and/or mitigate its negative consequences; these rulings are issued by courts, tribunals, and other rule-compliance monitoring bodies, operating around the world, both at the domestic, regional, and global levels; and can be based on rules of domestic, regional and/or international law, both of public and private (civil) law character.³⁸ Climate litigation has, in recent years, become a popular and essential tool to urge action to prevent dangerous climate change, and support the goals of the Paris Agreement.³⁹

³⁶ Ellen Hey, *Distributive Justice and Procedural Fairness in Global Water Law*, in ENVIRONMENTAL LAW AND JUSTICE IN CONTEXT 352 (Jonas Ebbesson & Phoebe Okowa eds., 2009).

³⁷ See also Erik Pihl *et al.*, *10 New Insights in Climate Science 2020—A Horizon Scan*, 5 GLOBAL SUSTAINABILITY 1–65 (2021).

³⁸ MARTHE TORRE-SCHAUB, LUCA D'AMBROSIO & BLANCHE LORMETEAU, *LES DYNAMIQUES DU CONTENTIEUX CLIMATIQUE: USAGES ET MOBILISATIONS DU DROIT POUR LA CAUSE CLIMATIQUE* (2019); Brian Preston, *The Evolving Role of Environmental Rights in Climate Change Litigation*, 2 CHINESE JOURNAL OF ENVIRONMENTAL LAW 131–164 (2018).

³⁹ Lennart Wegener, *Can the Paris Agreement Help Climate Change Litigation and Vice Versa?*, 9 TRANSNATIONAL ENVIRONMENTAL LAW 17–36 (2020); Katerina Mitkidis & Theodora N. Valkanou, *Climate Change Litigation: Trends, Policy Implications and the Way Forward*, 9 TRANSNATIONAL ENVIRONMENTAL LAW 11–16 (2020).

The most important examples will now be briefly introduced. At the time of writing, new climate litigation is springing up like mushrooms all over the world, and it is impossible to keep track of all these cases. The examples referred to below are selected because they are some of the earlier ones, and because they paved the way for the many that follow. And they are amongst the most successful, innovative, and influential.⁴⁰

The *Urgenda* case in the Netherlands is probably the best-known example of first-generation climate litigation.⁴¹ It has received a lot of attention in scholarly literature,⁴² and it has inspired people and foundations all over the world to initiate similar proceedings.⁴³ This was a case initiated by a foundation called *Urgenda*, established under Dutch private (civil) law, directed against the state of the Netherlands. *Urgenda* held the Netherlands responsible for not doing enough to prevent dangerous climate change and/or mitigate the harmful effects thereof, qualifying this inaction as a breach of Article 2 (right to life) and Article 8 (family life) of the European Convention on Human Rights (ECHR). Following the earlier rulings of the Dutch District Court of 2015,⁴⁴ and the Appeals Court of 2018,⁴⁵ the Supreme Court of the Netherlands ruled in *Urgenda's* favour on 20 December 2019.⁴⁶ In support of its rulings, the Dutch courts made extensive references to the case law of the European Court of Human Rights, even though this case law was strictly speaking not legally binding on the Dutch courts.⁴⁷ The rulings are thus an excellent example of the jurisprudential and judicial cross-fertilization so strongly advocated and encouraged by the global law scholars.

Another example of climate litigation at the domestic level is the case between the Friends of the Irish Environment and the state of Ireland. In this case, the Supreme Court of Ireland ruled on 31 July 2020 that Ireland's National Mitigation Plan was too vague

⁴⁰ The climate litigation database of the Sabin Center of Climate Change Law at Columbia University (USA) does a good job at keeping up with the latest developments: <http://climatecasechart.com/>. At the London School of Economics (UK), a database is updated regularly: <https://climate-laws.org/>.

⁴¹ Otto Spijkers, *Pursuing Climate Justice Through Public Interest Litigation: The Urgenda Case*, VÖLKERRECHTSBLOG (2020).

⁴² See, e.g., Lavanya Rajamani, *Innovation and Experimentation in the International Climate Change Regime*, 404 HAGUE ACADEMY COLLECTED COURSES/RECUEIL DES COURS DE L'ACADÉMIE DE LA HAYE 219 (2020); André Nollkaemper & Laura Burgers, *Introductory Note to the State of the Netherlands v. Urgenda*, 59 INTERNATIONAL LEGAL MATERIALS 811–848 (2019); Jaap Spier, *The “Strongest” Climate Ruling Yet: The Dutch Supreme Court’s Urgenda Judgment*, 67 NETHERLANDS INTERNATIONAL LAW REVIEW 319–391 (2020); Otto Spijkers, *Urgenda Case Before Dutch Supreme Court*, HUNGARIAN YEARBOOK OF INTERNATIONAL LAW AND EUROPEAN LAW (2020).

⁴³ For an overview of the reactions to the *Urgenda* Supreme Court decision in the media and in scholarship, see Otto Spijkers, *The Case Between Urgenda and the State of the Netherlands*, 8 HUNGARIAN YEARBOOK OF INTERNATIONAL LAW AND EUROPEAN LAW 192–206 (2020).

⁴⁴ District Court The Hague, Judgment of 24 June 2015 in the case between the *Urgenda foundation and the State of the Netherlands (Ministry of infrastructure and the environment)*, English translation available at <http://deeplink.rechtspraak.nl/uitspraak?id=ECLI:NL:RBDHA:2015:7196>.

⁴⁵ Appeals Court The Hague, Judgment of 9 October 2018 in the case between *the State of the Netherlands (Ministry of infrastructure and the environment) and the Urgenda foundation*, English translation available at <http://deeplink.rechtspraak.nl/uitspraak?id=ECLI:NL:GHDHA:2018:2610>.

⁴⁶ Netherlands Supreme Court, Judgment of 20 December 2019 in the case between *the State of the Netherlands (Ministry of infrastructure and the environment) and the Urgenda foundation*, English translation available at <http://deeplink.rechtspraak.nl/uitspraak?id=ECLI:NL:HR:2019:2007>.

⁴⁷ *Id.*, section 5 in particular.

about the measures Ireland intended to take to combat climate change, as required under Ireland's own Climate Action and Low Carbon Development Act of 2015. Friends of the Irish Environment further alleged Ireland had breached certain human rights in the ECHR, but the Irish Court did not believe the Friends of the Irish Environment had standing to bring a claim based on that Convention. And thus, even though it is widely seen as a victory of the plaintiffs, this case was much less influential on the development of global law in the field of climate change than the *Urgenda* case referred to above.⁴⁸

Most climate litigation is directed against a state, but this is not necessarily the only actor that bears responsibility for climate change. Climate litigation is also being tried against private actors. For example, Friends of the Earth Netherlands (“Milieudefensie”) began a case against the giant global oil company Shell, headquartered in the city of The Hague, Netherlands.⁴⁹ In December of 2020, the District Court in The Hague heard oral arguments in the case, and on 26 May 2021, the same District Court delivered its revolutionary and ground-breaking judgment.⁵⁰ Claimants believe that Royal Dutch Shell is doing too little to reduce greenhouse gas emissions and prevent serious climate damage (i.e., global warming of over 1.5 degrees Celsius). The plaintiffs persuaded the Court to declare that Royal Dutch Shell is thereby acting unlawful, and that it must significantly reduce its greenhouse gas emissions and bring them in line with the global climate objective of the Paris Agreement. The plaintiffs stress constantly that they are not seeking some form of (financial) compensation. They also acknowledge that it is not the Court's task—let alone that of the Friends of the Earth—to tell Shell how exactly to accomplish the required reduction. The plaintiffs argued that Shell was acting in breach of its duty of care and in breach of Articles 2 and 8 of the ECHR. Friends of the Earth Netherlands were thus copying the legal strategy used in the *Urgenda* case, and this is no coincidence as the lead counsel is the same person in both procedures. This time, the plaintiffs were using this legal strategy “against” a transnational corporation instead of a state, which was a lot more difficult as formally only states have obligations under the ECHR.⁵¹ The Dutch District Court did acknowledge this, as it admitted that the provisions in the ECHR and the International Covenant on Civil and Political Rights (ICCPR) only “apply in relationships between states and citizens,” and thus “*Milieudensie et al.* cannot directly invoke these human rights with respect to [Shell].”⁵² However, that was not the end of the story. The Court continued as follows:

Due to the fundamental interest of human rights and the value for society as a whole they embody, the human rights may play a role in the relationship between *Milieudensie et al.* and [Shell]. Therefore, the court will factor in the human rights and the values they embody in its interpretation of the unwritten standard of care.⁵³

⁴⁸ Orla Kelleher, *A Critical Appraisal of Friends of the Irish Environment v Government of Ireland*, REVIEW OF EUROPEAN, COMPARATIVE AND INTERNATIONAL ENVIRONMENTAL LAW (2020).

⁴⁹ All the documents relating to the case are available at <https://en.milieudensie.nl/climate-case-shell>.

⁵⁰ Netherlands District Court (The Hague), Judgment of 26 May 2021 in the case between *the association Vereniging Milieudensie et al. versus Royal Dutch Shell PLC in The Hague*, case nr. C/09/571932 / HA ZA 19-379, English translation available at <http://deepink.rechtspraak.nl/uitspraak?id=ECLI:NL:RB DHA:2021:5339>. See especially para 5.3.

⁵¹ For a first commentary of the efforts undertaken in different jurisdictions (the Philippines), see Lisa Benjamin, *The Responsibilities of Corporations: New Directions in Environmental Litigation*, in RESEARCH HANDBOOK ON TRANSNATIONAL ENVIRONMENTAL LAW (Veerle Heyvaert & Leslie-Anne Duvic-Paoli eds., 2020).

⁵² District Court The Hague 2021, *supra* note 50, paras. 4.4.9; see also paras. 4.6.1 and 5.2.

⁵³ *Id.*, para. 4.4.9.

The Court found further support for the obligation of corporations to respect human rights in the UN Guiding Principles on Business and Human Rights (UNGP), which were developed by the Special Representative of the UN Secretary-General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie.⁵⁴

On the applicability of global human rights law to multinationals such as Shell, the Court concluded as follows:

Business enterprises should respect human rights. This means that they should avoid infringing on the human rights of others and should address adverse human rights impacts with which they are involved. Tackling the adverse human rights impacts means that measures must be taken to prevent, limit and, where necessary, address these impacts. It is a global standard of expected conduct for all businesses wherever they operate. [...] [T]his responsibility of businesses exists independently of states' abilities and/or willingness to fulfil their own human rights obligations, and does not diminish those obligations. It is not an optional responsibility for companies. It applies everywhere, regardless of the local legal context, and is not passive [...] it requires action on the part of businesses.⁵⁵

Climate litigation is not a uniquely European phenomenon. Far from it. In fact, if one looks purely at the number of cases, then most are initiated before the courts of the United States.⁵⁶ Another example, this time from South America, is a case where the rights of nature figured prominently. In a case between *Demanda Generaciones Futuras* and the Colombian Ministry of the Environment, the Supreme Court of Colombia recognized that the Amazon River itself had legal personality.⁵⁷ This case was initiated by a group of children living in the affected area. The Colombian Supreme Court thus recognized the legal capacity of children to assert standing for the rights of nature under Colombian domestic law.

Climate litigation can be initiated before a domestic court, as was done in all the examples referred to just above. But it is also done at regional or international courts, as well as before human rights treaty bodies or other global law-compliance mechanisms. One recent example of a case initiated before a regional human rights court, is the case currently pending before the European Court of Human Rights, lodged by four Portuguese children and two young adults against all European Union member states and the United Kingdom, Norway, Russia, Turkey, Switzerland, and Ukraine.⁵⁸ The Portuguese youngsters hold these states collectively responsible for not doing enough to prevent dangerous climate change and/or mitigate the harmful effects thereof, again—as in the *Urgenda* case—relying on

⁵⁴ *Id.*, paras. 4.4.13–4.4.14. Reference is made to John Ruggie, *Guiding Principles on Business and Human Rights*, UN Doc. A/HRC/17/31, 21 March 2011. The Human Rights Council endorsed the Guiding Principles in a resolution adopted 16 June 2011, UN Doc. A/HRC/RES/17/4.

⁵⁵ *Id.*, para. 4.4.15.

⁵⁶ A 2019 “snapshot” of the London School of Economics counted 1,023 American cases and around 200 cases from outside Europe/United States. See JOANA SETZER & REBECCA BYRNES, *GLOBAL TRENDS IN CLIMATE CHANGE LITIGATION: 2019 SNAPSHOT* (2019).

⁵⁷ *Demanda Generaciones Futuras v. Minambiente* (Future Generations v. Ministry of the Environment), Corte Suprema de Justicia (Colombia), 5.4.2018, 11001-22-03-000-2018-00319-01. A translation is provided at <http://climatecasechart.com/non-us-case/future-generation-v-ministry-environment-others/>.

⁵⁸ European Court of Human Rights, Application No. 39371/20, Cláudia Duarte Agostinho and others v. Portugal and 32 other states, filed on 7 September 2020.

Articles 2 and 8 ECHR, but adding that this also constitutes a breach affecting youth in particular, thus constituting a breach of Article 14 ECHR, which says:

The enjoyment of the rights and freedoms set forth in [the ECHR] shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status.

They refer in particular to the forest fires that have plagued Portugal each year over the last decades, and which have cost the lives of many people. To support their argument that youth in particular is affected, they also refer to the UN Convention on the Rights of the Child, and to the principle of intergenerational equity as it exists in international environmental law.

Clearly, their legal strategy is inspired by that of the *Urgenda* litigation. In their application, they refer explicitly to the rulings in the *Urgenda* case as source of inspiration for their legal strategy, but also as source of authority to support their argumentation.⁵⁹ At the time of writing, the European Court of Human Rights has yet to decide on the admissibility of the application, before it can turn to the merits. But the case has already attracted lots of scholarly, media, and public attention.⁶⁰

Two examples of climate litigation before UN treaty-monitoring bodies have also attracted a lot of attention.⁶¹ First, there is the case of sixteen children, including Greta Thunberg, at the UN Committee on the Rights of the Child, relating to an alleged lack of effective action by the States of Argentina, Brazil, France, Germany, and Turkey to combat climate change, which, in view of the children plaintiffs, constitutes a violation of Articles 3, 6, 24, and 30 of the Convention on the Rights of the Child.⁶²

Second, there is the case of Ioane Teitiota, a citizen of Kiribati.⁶³ He directed his complaint against the state of New Zealand before the UN Human Rights Committee, which monitors compliance with the International Covenant on Civil and Political Rights (ICCPR).⁶⁴ Teitiota argued that, by deporting him back to his home country of Kiribati,

⁵⁹ Application Form, esp. paras. 9, 36–38. The Application Form is available at <https://youth4climatejustice.org/the-case.html>.

⁶⁰ For the potential of the ECHR as climate litigation forum, see Natalia Kobylarz, *The European Court of Human Rights: An Underrated Forum for Environmental Litigation*, in SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES: LEGAL INSTRUMENTS AND APPROACHES 99–120 (Helle Tegner Anker & Birgitte Egelund Olsen eds., 2018).

⁶¹ Ademola Oluborode Jegede, *Arguing the Right to a Safe Climate under the UN Human Rights System*, 9 INTERNATIONAL HUMAN RIGHTS LAW REVIEW 184–212 (2020).

⁶² Communication to the Committee on the Rights of the Child, in the Case of Chiara Sacchi (Argentina), Catarina Lorenzo (Brazil), Iris Duquesne (France), Raina Ivanova (Germany), Ridhima Pandey (India), David Ackley, Ranton Anjain, and Litokne Kabua (Marshall Islands), Deborah Adegbile (Nigeria), Carlos Manuel (Palau), Ayakha Melithafa (South Africa), Greta Thunberg (Sweden), Raslen Jbeili (Tunisia), as well as Carl Smith and Alexandria Villaseñor (USA) versus the States of Argentina, Brazil, France, Germany and Turkey, submitted under Article 5 of the Third Optional Protocol to the United Nations Convention on the Rights of the Child, on 23 September 2019, Application No. 104-108/2019.

⁶³ See also Gabriella Citroni, *Human Rights Committee's Decision on the Case Ioane Teitiota v New Zealand: Landmark or Will-o'-the-wisp for Climate Refugees?*, 75 QUESTIONS OF INTERNATIONAL LAW 1–5 (2020).

⁶⁴ United Nations Human Rights Committee, Views Adopted by the Committee under Article 5(4) of the Optional Protocol of the International Covenant on Civil and Political Rights, Concerning Communication No. 2728/2016 (Ioane Teitiota v. New Zealand), UN Doc. CCPR/C/127/D/2728/2016, distributed 23 September 2020.

New Zealand had violated his right to life. Forcing him to return to Kiribati would constitute a threat to his life, so he argued, because his home country had become uninhabitable due to the harmful consequences of climate change, sea-level rise especially. While the Committee did not agree that his life was in danger, the Committee did accept his line of argumentation in theory. This is a careful first acceptance of rights of those who leave their country because it no longer sustains their life, i.e., of so-called “climate migrants.” The case attracted lots of scholarly attention, even though the plaintiff was in the end not entirely successful in his claim.⁶⁵

There is as yet no example of an *inter-state* case that relates explicitly to climate change adjudicated by a traditional inter-state dispute settlement mechanism—think of the ICJ, the International Tribunal for the Law of the Sea (ITLOS), or inter-state arbitration facilitated by the Permanent Court of Arbitration (PCA). Having said that, states have in recent times found such courts and tribunals to be an appropriate venue for the settlement of their international environmental legal disputes.⁶⁶ This has given these courts the opportunity to confirm and elucidate the exact meaning of certain substantive and procedural obligations under international environmental law. Here one may think of the evaluation of evidence in establishing environmental harm, and the duty of reparation for transboundary environmental harm. See, for example, the recent judgment of the ICJ in a case between Nicaragua and Costa Rica of 2018.⁶⁷ And there is good reason to expect more to come. For example, Vanuatu and certain other Pacific Island states have openly been exploring the option of seeking an advisory opinion from the ICJ on legal questions concerning climate change.

The examples above demonstrate that courts all over the world, operating at all levels of governance, accept and act on their responsibility to shape the norms of global law through their consistent and uniform interpretation and application. Earlier, we referred not only to the responsibility of judges to shape global law; but also, to the responsibility of the scholarly community. Does the scholarly community assist the courts, by providing tools to identify, from the great variety of case law, a uniform set of legal rules and procedures designed to protect our climate? Efforts are being made by scholars all over the world to distil some general rules and principles from all this domestic, regional, and global climate litigation.⁶⁸ The International Bar Association (IBA) produced a Model Statute for Proceedings Challenging Government Failure to Act on Climate Change, trying to bring it all together into a set of fundamental rules and principles.⁶⁹

Climate litigation shows interesting potential for cross-fertilization of different courts and tribunals, at domestic, regional, and international levels. Scholarly efforts, including the report of the IBA alluded to just above, all attempt to provide a boost to this development.

⁶⁵ Jane McAdam, *Protecting People Displaced by the Impacts of Climate Change: The UN Human Rights Committee and the Principle of Non-Refoulement*, 114 AMERICAN JOURNAL OF INTERNATIONAL LAW 708–725 (2020).

⁶⁶ TIM STEPHENS, INTERNATIONAL COURTS AND ENVIRONMENTAL PROTECTION (2009).

⁶⁷ ICJ, *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)*, Compensation Owed by The Republic of Nicaragua to the Republic of Costa Rica, Judgment (2 February 2018).

⁶⁸ SETZER & BYRNES, *supra* note 56. See also Maiko Meguro, *Litigating Climate Change Through International Law: Obligations Strategy and Rights Strategy*, LEIDEN JOURNAL OF INTERNATIONAL LAW 1–19 (2020). Jochelle Greaves Siew, *Facing the Future: The Case for a Right to a Healthy Environment for Future Generations under International Law*, 8 GRONINGEN JOURNAL OF INTERNATIONAL LAW (2020).

⁶⁹ INTERNATIONAL BAR ASSOCIATION (IBA), MODEL STATUTE FOR PROCEEDINGS CHALLENGING GOVERNMENT FAILURE TO ACT ON CLIMATE CHANGE (2020).

That is most helpful, because the cross-fertilizing potential has not yet been exploited fully. We may thus expect more fruitful and dense cross-fertilization in the (immediate) future.⁷⁰

In what follows, some general developments will be drawn from above-mentioned examples of climate litigation, taken in their local context, but also seeing them as one major global effort of judges to play their part in combating climate change. Even though it is still at its early stages, climate litigation has not been without its accomplishments and successes.⁷¹

B. Courts and Lawmakers

The relationship between the courts and the legislature is clear and simple: courts apply the law; the legislator makes the law. This formal separation of tasks—or division of labor—exists both at the domestic and global levels. *Domestic* law is made by the legislative branch of government, and *international* law is made by representatives of sovereign states, concluding treaties with each other, or through their practice which establishes rules of customary international law. Courts then apply this law to the facts of a particular dispute that they are asked to settle. Or is reality more complicated than this?⁷²

In her doctoral dissertation, Laura Burgers directly tackled this question. She concluded that judges *do* engage in what she labels as “judicial law-making.” In essence, her argument is as follows:

Whereas legislatures are thought to be the creators of law, judiciaries should only apply law. Yet when speaking of the work of judges, it is impossible to make a clear-cut distinction between law-application and law-making. Legal rules are typically formulated in the abstract; judicial decisions render the rules applicable to new factual situations. Any court decision thus contributes to further concretization of the law, as even non-contentious court decisions render a certain abstract rule applicable to a concrete set of facts. In this way, court decisions always are constituent elements of law; they represent the most authoritative contribution to the public debate on how to interpret (what are) the applicable rules.⁷³

When it comes to climate litigation specifically, the question is essentially the following: Is developing a climate policy not a task for the lawmakers instead of the courts?

This question raises the *problématique* of the apparent distortion of the balance of power between the executive, legislative, and judicial branches of government (*trias politica*).⁷⁴ When judges decide how states ought to combat climate change, based on rules that were

⁷⁰ Geetanjali Ganguly, *Judicial Transnationalization*, in RESEARCH HANDBOOK ON TRANSNATIONAL ENVIRONMENTAL LAW (Veerle Heyvaert & Leslie-Anne Duvic-Paoli eds., 2020).

⁷¹ In what follows, only some general trends are touched upon briefly. This chapter is not the place for an in-depth analysis of these trends.

⁷² See also Suzanne Kingston, *Transnational Environmental Governance Before the Courts*, in RESEARCH HANDBOOK ON TRANSNATIONAL ENVIRONMENTAL LAW (Veerle Heyvaert & Leslie-Anne Duvic-Paoli eds., 2020).

⁷³ LAURA BURGERS, JUSTITIA, THE PEOPLE’S POWER AND MOTHER EARTH: DEMOCRATIC LEGITIMACY OF JUDICIAL LAW-MAKING IN EUROPEAN PRIVATE LAW CASES ON CLIMATE CHANGE 9–10 (2020).

⁷⁴ For a more detailed analysis of this *problématique*, see, e.g., Otto Spijkers, *The Urgenda Case: A Successful Example of Public Interest Litigation for the Protection of the Environment?*, in COURTS AND THE ENVIRONMENT (Christina Voigt & Zen Makuch eds., 2018).

initially not specifically meant to regulate the combat against climate change—such as the human right to life or privacy—they basically make new law. And then it appears we live in a “dikastocracy,” i.e., a world ruled by judges.⁷⁵ This is problematic, because judges are not democratically elected, and thus they cannot claim to speak on behalf of the state’s population. Too much political power for the courts is undesirable. On the other hand, when the lawmakers fail to make the laws and policies necessary to combat dangerous climate change—and many governments are obviously failing to do so⁷⁶—should the courts not be allowed to step in and interpret the existing law creatively, given the urgency to act? For example, if a state’s failure to take effective action to prevent dangerous climate change results in a threat to the life of the people residing within that state, why should the courts not be allowed to remind lawmakers of their obligation to protect people’s lives?

The Netherlands Supreme Court was the first court to directly address this *problématique* head-on. The Court felt it was appropriate to elaborate in its ruling on this controversial relationship between court and legislator, instead of avoiding this thorny separation of powers issue (what it could easily have done).⁷⁷ Since then, many plaintiffs have formulated their claim in the same language, hoping for the same result.

In this debate, the courts are generally perceived as the “good guys,” i.e., those that defend our constitutional principles from the challenges of cynical and populist power politics. There might be something naïve about this narrative, and about the assumption that judicial activism always leads to progressive and desired outcomes. In scholarship, one increasingly finds people warning against this faith in the courts as upholder of liberal cosmopolitan values. Judges are human beings, after all, and can also deliver “bad” decisions. The challenge is thus to find a good balance between the court and the lawmaker, so that they can keep each other’s power in check.⁷⁸

C. Court and Science

Judges are not exact scientists. They lack the knowledge and expertise to establish a causal relationship between a particular state’s policies and global climate change. They thus need to rely on the work of exact scientists to establish such a causal link, which is necessary if a state is to be held responsible for a failure to play its part in the fight against climate change. Climate litigation has to a significant extent relied on the scientific insights provided by the Intergovernmental Panel on Climate Change (IPCC). Not only to establish the causal link, but also to determine what degree of state action is sufficient to combat dangerous climate change, and thus to protect the right to life and to a healthy environment of the people residing within a state’s jurisdiction.

⁷⁵ The term “dikastocracy” is not used very often in academic legal scholarship. For a rare example, see Marius van Staden, *The Role of the Judiciary in Balancing Flexibility and Security*, 46 DE JURE 472 (2013), but this publication is unrelated to the *Urgenda* litigation.

⁷⁶ Otto Spijkers & Sofie Oosterhuis, *The Dutch Response to Climate Change: Evaluating the Netherlands’ Climate Act and Associated Issues of Importance*, in MAJOR NATIONAL CLIMATE CHANGE ACTS: THEIR EMERGENCE, FORM AND NATURE (Thomas Muinzer ed., 2020).

⁷⁷ Netherlands Supreme Court 2019, *supra* note 46, paras. 8.1–8.3.5.

⁷⁸ For an interesting discussion on this theme, see Daniel Quiroga-Villamarín, *From Speaking Truth to Power to Speaking Power’s Truth: Transnational Judicial Activism in an Increasingly Illiberal World*, and Andreas Paulus, *From Judicialisation to Politicisation? A Response to Daniel Quiroga-Villamarín by an Academic Turned Practitioner*, in CYNICAL INTERNATIONAL LAW?: ABUSE AND CIRCUMVENTION IN PUBLIC INTERNATIONAL AND EUROPEAN LAW 111–133 and 135–141 (Björnstjern Baade et al. eds., 2021).

Again, the *Urgenda* ruling of the Netherlands Supreme Court basically showed how this is done. In assessing what the Netherlands should do to play its part in the fight against climate change, the court considered broadly supported scientific insights, and derived this global consensus among the climate scientists from the reports issued by the IPCC.⁷⁹

The courts need the help of science to determine the emission reductions needed to stay well below the ambitions set out in Article 2 of the Paris Agreement.⁸⁰ This is an issue that crops up often in climate litigation, but it is not unique to climate change-related cases. In a recent study on the relationship between science and judicial reasoning in global environmental adjudication, Katalin Sulyok demonstrated how different global courts can learn from each other in the way they deal with this challenging relationship.⁸¹ Sulyok focused on the judicial engagement with science in the environmental case law of the ICJ, inter-state arbitral tribunals, regional human rights courts, the World Trade Organization, investment tribunals, and ITLOS. But one might just as well expand this research and include domestic courts as well.

D. Human Right to a Healthy Environment

So far, the most successful examples of climate litigation are based on human rights law. A state failure to take effective action to combat climate change and/or mitigate its negative consequences is qualified as a breach of that state's obligation to protect the human right to life and to a healthy environment of all individuals residing within its jurisdiction. The *Urgenda* case is a good example of this. And the *Shell* case was also in part based on the same global human rights, this time applied—albeit indirectly—against a transnational corporation. All over the world, climate litigation is done primarily based on domestic, regional, and/or global human rights law.⁸²

With each new case, the exact content of these rights becomes clearer, as well as the precise action needed of states to adequately protect the enjoyment of these rights by individuals residing within their jurisdiction or control, and the obligations of transnational corporations to act responsibly.

More particularly, looking at the state's and international corporation's responsibilities through the human rights prism has focused the debates on the applicable standard of due diligence. It also encouraged states to agree on an ambition in their national climate plans, policies, and laws that is appropriate in the face of the extreme challenges we face. And it encourages other actors, multinationals in particular, to accept their responsibility and act on it.

⁷⁹ Netherlands Supreme Court 2019, *supra* note 46, paras. 6.1–7.3.6 in particular.

⁸⁰ David Hunter, Wenhui Ji & Jenna Ruddock, *The Paris Agreement and Global Climate Litigation after the Trump Withdrawal*, 34 MARYLAND JOURNAL OF INTERNATIONAL LAW 224–248 (2019).

⁸¹ KATALIN SULYOK, SCIENCE AND JUDICIAL REASONING: THE LEGITIMACY OF INTERNATIONAL ENVIRONMENTAL ADJUDICATION (2020). See also PIA M. KOHLER, SCIENCE ADVICE AND GLOBAL ENVIRONMENTAL GOVERNANCE: EXPERT INSTITUTIONS AND THE IMPLEMENTATION OF INTERNATIONAL ENVIRONMENTAL TREATIES (2019).

⁸² For the Global South, see, e.g., César Rodríguez-Garavito, *Human Rights: The Global South's Route to Climate Litigation*, 114 AMERICAN JOURNAL OF INTERNATIONAL LAW UNBOUND 40–44 (2020); and Jacqueline Peel & Jolene Lin, *Transnational Climate Litigation: The Contribution of the Global South*, 113 AMERICAN JOURNAL OF INTERNATIONAL LAW 679–726 (2019).

Also, the courts have made interesting pronouncements on how the human rights to life and a healthy environment are linked with obligations under international environmental law, both substantive and procedural.⁸³

The most fundamental substantive obligation under international environmental law is most certainly the duty of all states to “ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”⁸⁴ This is complemented by an intergenerational duty, namely, the obligation of all states to ensure that their present policies do not compromise the ability of future generations to meet their needs.

These general obligations are linked to more specific and technical obligations such as the precautionary principle, which says that “lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”⁸⁵ This principle is applied in the context of climate change in Article 3 of the UN Framework Convention on Climate Change, which proclaims that “parties should take precautionary measures to anticipate, prevent, or minimize the causes of climate change and mitigate its adverse effects.”

One might think also of the obligation to conduct an environmental impact assessment “for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority,” and to do so at the appropriate time, i.e., prior to any decision made to authorize or engage in a project that is likely to cause significant harm to the environment.⁸⁶

The list of more specific and technical principles of international environmental law continues. There is the principle of common but differentiated responsibilities, the polluter-pays principle, and the principle of good governance. The latter obliges states *inter alia* to put in place transparent decision-making procedures, combat corruption, and observe the rule of law.⁸⁷

And then there are the procedural principles.⁸⁸ One might think of the obligation for all states to facilitate meaningful participation by all concerned citizens in environmental decision-making processes that concern them, to allow them access to information and access to judicial and administrative proceedings and remedies. There also exist inter-state procedural principles, such as the obligation to provide “timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect,” and the related obligation to “consult with those States at an early stage and in good faith.”⁸⁹

⁸³ See also Jacqueline Peel & Hari M. Osofsky, *A Rights Turn in Climate Change Litigation?*, 7 *TRANSNATIONAL ENVIRONMENTAL LAW* 37–67 (2018).

⁸⁴ Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26/Rev.1, in the Proceedings of the Report of the United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3–14 June 1992; Volume I, Principle 3.

⁸⁵ *Id.*, Principle 15.

⁸⁶ *Id.*, Principle 17.

⁸⁷ International Law Association (ILA), *New Delhi Declaration of Principles of International Law Relating to Sustainable Development*, *XLIX NETHERLANDS INTERNATIONAL LAW REVIEW* 299–305 (2002).

⁸⁸ On the difference and interrelations between substantive and procedural principles of international environmental law, see also Jutta Brunnée, *Procedure and Substance in International Environmental Law*, 405 *HAGUE ACADEMY COLLECTED COURSES/RECUEIL DES COURS DE L'ACADÉMIE DE LA HAYE* 87–230 (2020).

⁸⁹ Rio Declaration on Environment and Development, *supra* note 84, Principle 19.

The clearest example of a statement, issued by a treaty-monitoring body, urging for integration of human rights law and above-mentioned principles of international environmental law, is the General Comment on the Human Right to Life, issued in 2019 by the UN Human Rights Committee. In this comment, the following is noted:

The obligations of States parties under international environmental law should [...] inform the content of article 6 of the [ICCPR], and the obligation of States parties to respect and ensure the right to life should also inform their relevant obligations under international environmental law. Implementation of the obligation to respect and ensure the right to life, and in particular life with dignity, depends, *inter alia*, on measures taken by States parties to preserve the environment and protect it against harm, pollution and climate change caused by public and private actors. States parties should therefore ensure sustainable use of natural resources, develop and implement substantive environmental standards, conduct environmental impact assessments and consult with relevant States about activities likely to have a significant impact on the environment, provide notification to other States concerned about natural disasters and emergencies and cooperate with them, provide appropriate access to information on environmental hazards and pay due regard to the precautionary approach.⁹⁰

This is one of the clearest expressions of support for what the International Law Association coined as the principle of integration, in its New Delhi Declaration of Principles of International Law Relating to Sustainable Development. There, the principle is defined as follows:

The principle of integration reflects the interdependence of social, economic, financial, environmental and human rights aspects of principles and rules of international law relating to sustainable development as well as of the interdependence of the needs of current and future generations of humankind.⁹¹

Clearly, the jurisprudential dialogue between judicial bodies with different jurisdictions and competence provides the ideal tool to further this norm-integration.

E. Climate Migrants and Refugees

Climate migrants can be described as people who are forced to leave their state of nationality or residence because it does not adequately protect their life from the threats caused by the harmful consequences of climate change. A famous example of a “climate migrant”—or “climate refugee”—is Ioane Teitiota.⁹²

Teitiota felt that the effects of climate change, and sea-level rise in particular, gave him no other option than to migrate from his island of Tarawa (Kiribati) to New Zealand. Due to rising sea levels, saltwater flooded his land during high tides, which made the freshwater on the island contaminated with salt and unsuitable for drinking and other purposes. His

⁹⁰ Human Rights Committee, General comment No. 36 on Article 6 International Covenant on Civil and Political Rights: Right to Life, distributed 3 September 2019, UN Doc. CCPR/C/GC/36, para. 62.

⁹¹ International Law Association (ILA), *supra* note 87, para. 7.1.

⁹² On the legal importance of the exact terminology used—“climate migrant” or “climate refugee”—see Simon Behrman & Avidan Kent, *The Teitiota Case and the Limitations of the Human Rights Framework*, 75 *QUESTIONS OF INTERNATIONAL LAW* 25–39 (2020).

own government was not doing enough to halt these rising sea levels or mitigate the negative effects thereof. Before the UN Human Rights Committee, Teitiota phrased his complaint in human rights language, as follows:

[B]y removing [Ioane Teitiota] to Kiribati, New Zealand violated his right to life under the [ICCPR]. Sea level rise in Kiribati has resulted in the scarcity of habitable space, which has in turn caused violent land disputes that endanger the author's life, and environmental degradation, including saltwater contamination of the freshwater supply.⁹³

The Committee did not find a violation *in casu*, and thus Teitiota in a way “lost” his case. He was personally very disappointed and expressed his frustrations afterwards.⁹⁴

But the proceedings before the Committee can nonetheless be seen as a success because the Committee did accept that in extreme cases, climate change could pose a real threat to an individual's life. In the relevant part of the ruling (officially called the Committee's “Views”), the Committee first “recall[ed] that environmental degradation, climate change and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life.”⁹⁵ This was a reference to the General Comment on the Human Right to Life, issued by the Human Rights Committee already one year earlier, in September 2019, in which it had made the following remark:

Environmental degradation, climate change and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life.⁹⁶

In its Views of 2020, the Committee added the following to the just-quoted paragraph:

Without robust national and international efforts, the effects of climate change in receiving States may expose individuals to a violation of their rights under Articles 6 or 7 of the [ICCPR], thereby triggering the *non-refoulement* obligations of sending States. Furthermore, given that the risk of an entire country becoming submerged under water is such an extreme risk, the conditions of life in such a country may become incompatible with the right to life with dignity before the risk is realized.⁹⁷

This is probably the most often cited part in the Committee's ruling. The opinion of scholars of the Committee's Views are divided. Many scholars regard it as the beginning of a human rights response to climate migration; others see it only as part of the answer to the *problématique* of forced migration due to the consequences of climate change.⁹⁸ Some believe that climate change is an indirect reason to escape from one's homeland, and thus

⁹³ Human Rights Committee 2020, *supra* note 64, para. 3.

⁹⁴ Behrman & Kent, *supra* note 92, at 38–39.

⁹⁵ Human Rights Committee 2020, *supra* note 64, para. 9.4.

⁹⁶ Human Rights Committee 2019, *supra* note 90, para. 62.

⁹⁷ Human Rights Committee 2020, *supra* note 64, para. 9.11.

⁹⁸ For the latter view, see Vernon Rive, *Is an Enhanced Non-Refoulement Regime Under the ICCPR the Answer to Climate Change-Related Human Mobility Challenges in the Pacific? Reflections on Teitiota v New Zealand in the Human Rights Committee*, 75 *QUESTIONS OF INTERNATIONAL LAW* 7–24 (2020).

climate migration differs fundamentally from traditional reasons of escape, such as fear of political persecution and armed conflict.⁹⁹

Of note is also that the Committee referred to an advisory opinion and judgment of the Inter-American Court of Human Rights, a general comment of the African Commission on Human and Peoples' Rights, and a series of judgments of the European Court of Human Rights, in support of its interpretation of the relevant norms of global law.¹⁰⁰ Admittedly, it did not refer to *domestic* examples of climate litigation, such as the *Urgenda* ruling of the Netherlands Supreme Court, or any of the other examples referred to above. The jurisprudential cross-fertilization and cross-referencing, so strongly advocated and encouraged by global law scholars, was thus limited in this case to decisions issued at the regional and international level.

F. Extraterritorial Duties

In her doctoral dissertation, Laura Burgers persuasively demonstrated that in lawmaking processes relating to the fight against climate change and the protection of the environment more generally, three groups are not included in the decision-making process: people who live in other states, future generations, and non-human entities such as animals, rivers, and ecosystems.¹⁰¹ In the next subsections, the role of these three groups will be discussed, beginning with people residing abroad (subsection F, this section), then future generations (subsection G), then nature subsection H).

One aspect that often comes up in climate litigation is that of extraterritorial responsibilities. What states do—or allow others to do—within their jurisdiction often has consequences on the other side of the state boundary, or even across the entire globe. This is especially the case with greenhouse gas emissions. The global impact of these emissions raises the issue of (shared) responsibility for extra-territorial emissions or harm in climate litigation.¹⁰² This gets even more complicated in case of so-called “imported emissions”—i.e., greenhouse gases that are emitted abroad but with the purpose of producing some good that is enjoyed at home. This issue is raised, for example, in the Portuguese children case currently pending before the European Court of Human Rights—already referred to above. The issue of extraterritorial responsibilities is well known in human rights law, where it is now generally accepted that states have responsibilities of human rights protection not just inside their territory, but also in places outside their territory where they nonetheless exercise a degree of control.¹⁰³

⁹⁹ Alina Precht, Qetevan Qistauri & Robert Uerpmann-Witzack, *Klimamigration an den Grenzen des Individualrechtsschutzes: Die Auffassungen des UN-Menschenrechtsausschusses in der Sache Teitiota*, 58 ARCHIV DES VÖLKERRECHTS 349–365 (2020).

¹⁰⁰ Human Rights Committee 2020, *supra* note 64, footnotes 22 to 24.

¹⁰¹ BURGERS, *supra* note 73, at 4. See also RANDALL S. ABATE, CLIMATE CHANGE AND THE VOICELESS: PROTECTING FUTURE GENERATIONS, WILDLIFE AND NATURAL RESOURCES (2019).

¹⁰² On the related *problématique* of how to determine a particular state's fair share of the global burden of mitigating climate change, see Gerry Liston, *Enhancing the Efficacy of Climate Change Litigation: How to Resolve the “Fair Share Question” in the Context of International Human Rights Law*, 9 CAMBRIDGE INTERNATIONAL LAW JOURNAL 241–263 (2020).

¹⁰³ See, e.g., Yuval Shany, *The Extraterritorial Application of International Human Rights Law*, 409 HAGUE ACADEMY COLLECTED COURSES/RECUEIL DES COURS DE L'ACADÉMIE DE LA HAYE 21–152 (2020).

G. Representation of Future Generations

The consequences of climate change will be felt mostly by future generations, i.e., the unborn. This raises the question of who can legally represent their interests today. The protection of the rights and interests of future generations is seen as an essential element of the emerging global law, and thus worth our particular attention.¹⁰⁴

The *Urgenda* case may once again serve as an illustration of how this issue is addressed in climate litigation.¹⁰⁵ According to Article 3:305A of the Dutch Civil Code, any foundation, which is established according to its own by-laws to protect a particular general interest, may bring to court any legal claim to protect that interest.¹⁰⁶ This provision permits people to establish a foundation with the aim of defending the interests of both present and future generations, without any obligation to consult them—and in case of future generations (the unborn), consultation is impossible—and without being accountable to them.

In theory, this might be a problematic issue, one that philosophers love to argue about.¹⁰⁷ However, one must remain practical: we do see that environmental foundations, taking on the role of self-appointed watchdogs against the national governments, *do* help in the enforcement of international and national law through climate litigation to ensure that governments keep to their environmental commitments.¹⁰⁸ Surely, future generations will not mind?

This question of standing and legal representation of the rights and interests of future generations is closely linked to the question of who is a “victim.” Article 34 of the ECHR is relevant in this context. It says:

The [European Court of Human Rights] may receive applications from any person, nongovernmental organization or group of individuals *claiming to be the victim of a violation by one of the High Contracting Parties of the rights set forth in the Convention or the Protocols thereto* [emphasis added].

When interpreted literally and restrictively, it is difficult to meet these strict requirements in the case of future harm or for harm done to future generations. Foundations claiming to represent the interests of future generations are not *themselves* the victim of the harmful consequences of climate change, and thus a literal reading of Article 34 ECHR would make public interest litigation, of which climate litigation is an example, practically impossible. This issue will surely emerge in the case of the Portuguese children before the European Court of Human Rights. When it comes to the admissibility of the claim of the Portuguese youth and children, the key question is whether they can be regarded as actual or potential victims of a violation of their rights under the Convention, as Article 34 ECHR requires.

¹⁰⁴ See, e.g., Ziccardi Capaldo, *supra* note 3, at xviii.

¹⁰⁵ For a more detailed analysis, see Otto Spijkers, *The Urgenda Case: A Successful Example of Public Interest Litigation for the Protection of the Environment?*, in *COURTS AND THE ENVIRONMENT* (Christina Voigt & Zen Makuch eds., 2018).

¹⁰⁶ See <https://wetten.overheid.nl/jci1.3:c:BWBR0005291&boek=3&titeldeel=11&artikel=305a>.

¹⁰⁷ Gareth Davies, *Climate Change and Reversed Intergenerational Equity: The Problem of Costs Now, for Benefits Later*, 10 *CLIMATE LAW* 266–281 (2020); Peter Lawrence & Lukas Köhler, *Representation of Future Generations through International Climate Litigation: A Normative Framework*, 60 *GERMAN YEARBOOK OF INTERNATIONAL LAW* 1–29 (2017); MARIE-CLAIRE CORDONIER SEGGER & MARCEL SZABO, *INTERGENERATIONAL JUSTICE IN SUSTAINABLE DEVELOPMENT TREATY IMPLEMENTATION: ADVANCING FUTURE GENERATIONS RIGHTS THROUGH NATIONAL INSTITUTIONS* (2021).

¹⁰⁸ Spijkers & Oosterhuis, *supra* note 76.

In other words, are they directly or indirectly affected by the serious consequences of the inaction of the respondent states to achieve the necessary reduction of greenhouse gas emissions?

This *problématique* of standing and legal representation of future generations has already led to fundamental differences of opinion between the lower and higher courts in the *Urgenda* case. The District Court did not believe *Urgenda* could claim to be a victim.¹⁰⁹ But the Appeals Court and Supreme Court held that Article 34 ECHR was not applicable *in casu*, because *Urgenda's* standing before the Dutch courts was regulated by Dutch private (civil) procedural law, not by the procedural law of the European Court of Human Rights.¹¹⁰

This issue of standing can also be approached in a more general sense, going beyond the question of who can initiate court proceedings. Then the question becomes: Who represents the rights and interests of future generations in a healthy environment? This can be a foundation established exactly for that purpose—like *Urgenda* or Friends of the Earth—but it could also be an ombudsperson, a governmental agency, a trustee, a select group of individuals, a select group of children, young adults, etc. It could basically be anyone or any type of collective.

Often, children claim to represent the future generations, which is a bit problematic, because they are formally part of the present generation.¹¹¹ Think of the cases referred to already above, of the sixteen children before the UN Committee on the Rights of the Child, and of the Portuguese youth before the European Court of Human Rights.

H. Representation of Nature

This is perhaps the most creative and revolutionary of all aspects, and we thus saved it for last. In a groundbreaking decision, the Colombian Supreme Court in the case between *Demanda Generaciones Futuras* and the Colombian Ministry of the Environment officially recognized the Amazon River as a “subject of rights.”¹¹² This case was also notable in that it was brought by a group of children living in the area at issue, thus recognizing the ability of children to assert standing for the rights of nature under Colombian law (see discussion in subsection G, just above). This is certainly not the only example of a ruling recognizing rights of nature, or elements thereof. Reference can also be made to a case in Argentina relating to the standing and rights of a wetland.¹¹³ This issue needs more case law to become clearer and more crystallized.

IV. CONCLUDING REMARKS

As is clear from the above, the potential of climate litigation in shaping those norms of global law that have a bearing on the global combat against climate change has been far from

¹⁰⁹ Netherlands District Court 2015, *supra* note 44, para. 4.45.

¹¹⁰ Netherlands Appeals Court 2018, *supra* note 45, paras. 34–35; Netherlands Supreme Court 2019, *supra* note 46, para. 5.9.3.

¹¹¹ See also Sumudu Atapattu, *Intergenerational Equity and Children's Rights: The Role Of Sustainable Development and Justice*, in CHILDREN'S RIGHTS AND SUSTAINABLE DEVELOPMENT: INTERPRETING THE UNCRC FOR FUTURE GENERATIONS 167–191 (Claire Fenton-Glynn ed., 2019); and Karin Arts, *Children's Rights and Climate Change*, CHILDREN'S RIGHTS AND SUSTAINABLE DEVELOPMENT: INTERPRETING THE UNCRC FOR FUTURE GENERATIONS 216–235 (Claire Fenton-Glynn ed., 2019).

¹¹² Corte Supreme de Justicia (Colombia) 2018, *supra* note 57.

¹¹³ *Asociación Civil por la Justicia Ambiental v. Province of Entre Ríos, et al.*, filed 7 July 2020.

exhausted. At the domestic level, most cases have thus far been initiated in Europe and the United States. But other parts of the world are joining in, bringing various innovative and out-of-the-box ideas.¹¹⁴

Because climate change itself is a global phenomenon, which does not respect state boundaries, the applicable norms are almost by definition of a global reach. This does not mean climate litigation must be done in a global court, based on traditional international law. Quite the opposite: one of the most influential cases, the *Urgenda* case, was a tort case based on domestic tort law—i.e., Dutch private (civil) law—by a local district court in a town in the Netherlands. But this local court was very much aware of the global impact its ruling was likely to have. For this reason, the ruling was published on the court’s website both in Dutch and in English—which is normally not done—and the rest was left to the scholarly community. Scholars quickly picked up the case and started deriving legal strategies and interpretations from it that might be applicable elsewhere in the world. Also, the claimant—Urgenda—has since devoted most of its time urging others to initiate similar cases, and it has offered its assistance and advice. It keeps a list of similar cases on its website, again to encourage others to follow. The site already features tremendously inspiring examples from Colombia, India, Korea, Mexico, Nepal, Pakistan, Peru, and so on.¹¹⁵

It is easy to see why climate litigation is such an encouraging and successful example of global law in action. The norms on which climate litigation is based—mostly global or regional human rights law—undisputedly have a global reach and ambition. And even though some cases are formally domestic private law cases, they do address global and “public” issues, i.e., issues that concern us all, both present and future generations. Climate litigation is clearly a global phenomenon. Even though the various local courts, regional human rights courts, UN monitoring bodies, and inter-state dispute settlement mechanisms formally have no link with each other, they do refer to each other’s jurisprudence, and they draw inspiration from each other’s work. In conclusion, all four characteristics of global law can be identified in climate litigation. Climate litigation may be the most successful example of global law in action our world has ever known!

¹¹⁴ For climate litigation in China, see Yue Zhao, Shuang Lyu & Zhu Wang, *Prospects for Climate Change Litigation in China*, 8 *TRANSNATIONAL ENVIRONMENTAL LAW* 349–377 (2019); Yina Liu, *Friends of Nature and Public Interest Environmental Litigation*, 3 *CHINESE JOURNAL OF ENVIRONMENTAL LAW* 225–232 (2019); Richard Zhang & Benoit Mayer, *Public Interest Environmental Litigation in China*, 1 *CHINESE JOURNAL OF ENVIRONMENTAL LAW* 202–228 (2017).

¹¹⁵ See <https://www.urgenda.nl/en/themas/climate-case/global-climate-litigation/>.