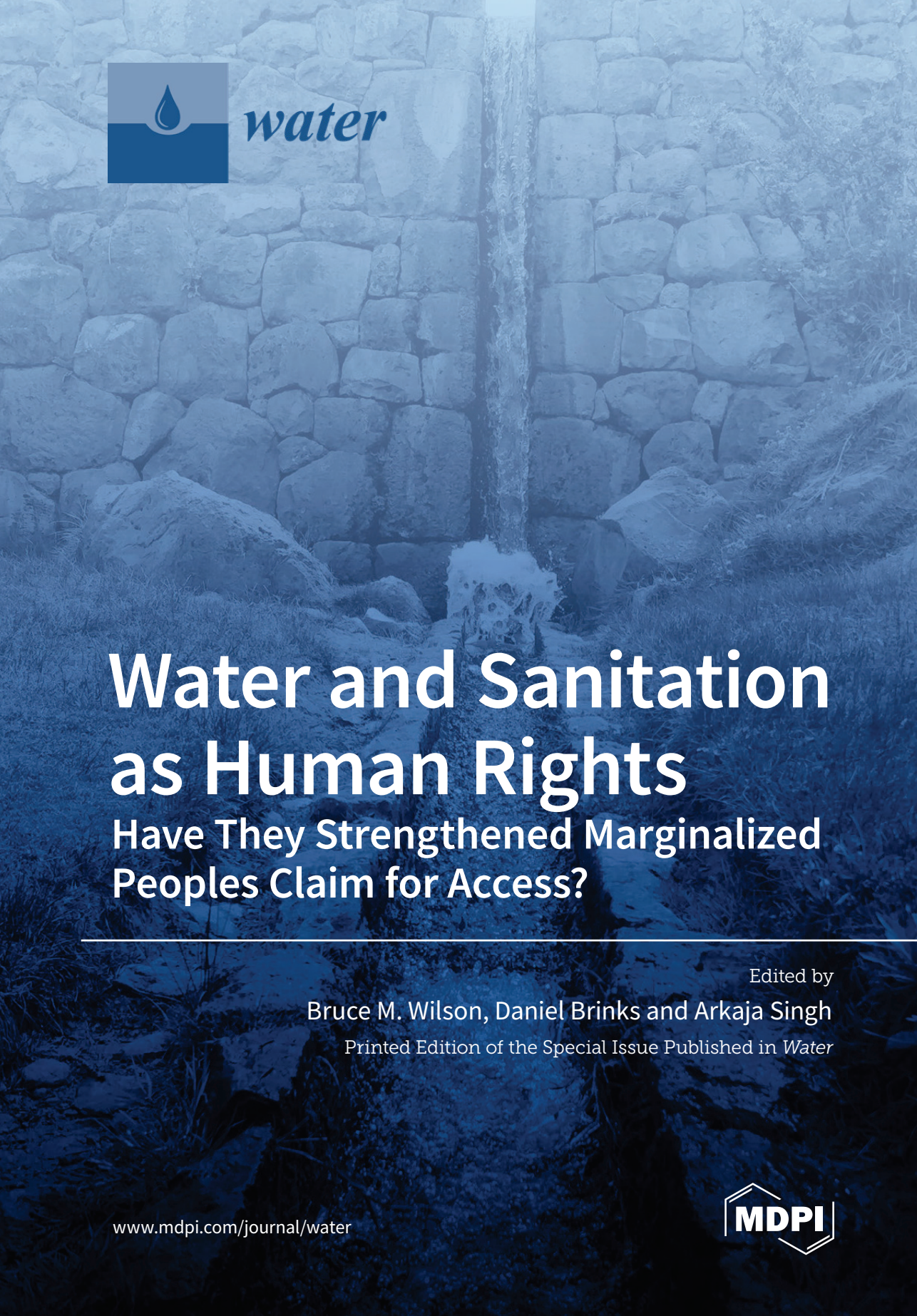

Water and Sanitation as Human Rights

Have They Strengthened Marginalized Peoples Claim for Access?

Edited by

Bruce M. Wilson, Daniel Brinks and Arkaja Singh

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Contents

About the Editors

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Preface to "Water and Sanitation as Human Rights: Have They Strengthened Marginalized Peoples' Claim for Access?"

The core argument that emerges from the chapters in this Special Issue owes its basic insight to the authors whose work is collected here and is at the same time a tribute to the activists whose work is described in these pages. Our argument is that building a global right is the work of myriad actors—including many we have not always considered to be legal actors—and takes place in a host of spaces, including many that are not generally considered to be legal spaces. Far from being a unified, generally efficacious (or uniformly ineffective) edifice built by international legal actors, global rights as sociolegal constructions emerge from a loosely connected, decentered process of appropriation and deployment of the language of rights in various political struggles. Global rights, we argue, emerge from felt human needs in all different contexts, as activists explore different ways to articulate their demands. The emergence of a right in sociolegal terms runs parallel to formal legal developments in either international or domestic law-making spaces; it is also influenced to very different degrees in various places by those developments. The rhetorical and political uses of the language of rights interact with the language of formal legal rights, each informing and influencing the other. The result is a much more variegated process of norm creation, which leads to rights with very different meanings and binding effects in different places. Indeed, the same right might have a different meaning for different actors, in the context of different struggles, in the same political and geographic space. Although the right to water may be a paradigmatic example, we believe that this decentered, disaggregated process describes, to one degree or another, the emergence of all the rights in our global repertoire.

Expanding our attention to include this decentered process of rights construction highlights the many possibilities for resistance and alternative legalities from below. The various chapters in the collection show how social actors often pursue a version of the human right that is in direct defiance of the content of the same human right as defined by judges or legal scholars. These competing meanings arise out of the demands of communities or interest groups. Expansive interpretations and novel articulations of the right are especially likely to appear when existing legal frameworks do not meet the needs of the rights-claimants. In a very real sense, activists adjust the right to match the shape of their claim, rather than molding their claim to the contours of the right. Further, they lay claim to the language of human rights exactly when the legal framework and the local political community seem to deny the legitimacy of their claim.

Relatedly, the binding force of the claim of right is revealed to be politically constructed. Rights are binding when the relevant decision-makers—sometimes elected officials, but surprisingly often bureaucrats, economic actors, and others—cannot but accede to the demands being made. This is sometimes because courts are willing and able to impose the necessary penalties for a violation. However, the chapters on our collection reveal that much, maybe most, compliance emerges out of political and social pressures; occasionally, it emerges spontaneously out of a background norm felt by bureaucrats and others that denying access to the right is simply not an option.

We, the editors, know these things because of the work carried out by the authors of the chapters that appear in this collection. The various chapters herein are the product of years of research and field work, of engagement with communities and activists, and often of legal and political activism. We are grateful for the opportunity to work with this talented and dedicated group of scholars.

This collection of chapters offers a valuable resource to help understand how global rights are constructed from a sociolegal perspective. Moreover, the collection taken together, and the argument that emerges from it, has important implications for some of the critiques of rights. In particular, the findings herein are inconsistent with arguments that international human rights force local activists' demands into straightjackets developed by forces outside those contexts or constrain activists to denatured understandings of their own needs and claims. In contrast, we argue that, certainly from a sociolegal perspective, it is not the rights or the international actors or even the national courts that play the role of Procrustes to the activists' traveler, cutting off the parts that do not fit their accepted formulation of rights. Rather, it is the other way around: locally rooted activists and communities most often seek, with admittedly varying degrees of success, to stretch or trim the right to fit their own needs.

We are grateful for the funding from the Norwegian Research Council for the multi-year project, "Elevating Water Rights to Human Rights: Has it strengthened marginalized peoples' claim for water? (Forskerprosjekt—FRIHUMSAM project number 263096; P.I.: Bruce M. Wilson). We are also grateful for funding from the University of Central Florida Preeminent Postdoctoral Program (P3) grant number 0000007509 (P.I.: Bruce M. Wilson), and for the support of the community of scholars associated with the Centre on Law and Social Transformation, the University of Bergen, the Christian Michelsen Institute, and to the many water rights scholars, activists, and professionals who generously gave their time and insight. Without that vibrant, global, engaged intellectual space, our work would be much impoverished, if possible at all.

Bruce M. Wilson, Daniel Brinks, and Arkaja Singh
Editors

water

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Article

The Decentered Construction of Global Rights: Lessons from the Human Rights to Water and Sanitation

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Abstract: Families in Flint, Michigan, protesting lead in their water, indigenous groups in the Amazon asserting control over their rivers, slum dwellers in India worried about disconnection or demanding cities bring potable water to their neighborhoods, an entire city in South Africa worried about the day when they will run out of water altogether—all these and many more have claimed the human right to water as the vehicle to express their demands. Where does this right come from, and how is its meaning constructed? In this article, we show that, in sociolegal terms, the global right to water, as are many others, is constructed out of the myriad struggles and claims of people who feel the lack of something that is essential to a dignified existence, and who cannot obtain an adequate response from their immediate political and legal environment. They do so in loose conversation with, but relatively unconstrained by, the meanings that are being constructed by the international and domestic legal experts who work on formal legal texts. We draw on research carried out around the world by a team of scholars whose articles are included in this Special Issue of the journal to illustrate the decentered construction of the right to water.

Keywords: human right to water and sanitation; global rights; human rights; evolution of rights; construction of rights; norm diffusion; Latin America; South Asia; Europe; Africa; USA

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1. Introduction

We were part of a group of researchers looking at the development of the human right to water in the aftermath of the 2010 recognition by the UN General Assembly of access to water and sanitation as a human right. The researchers, from Europe, Africa, Latin America, South Asia, and the US, carried out research across these regions exploring how various groups were using the human right to water to address their own felt needs, in their own political context. We draw lessons from this body of research to make a few points that we think are important correctives to general assumptions in the literature about how global human rights do, or ought to, arise and evolve. We argue that the process of building a global human right is radically decentered—that is, it takes place in many different spaces beyond those we often consider the centers of international legal development, with only tenuous and episodic connections to those centers. This is true not only in terms of the actors involved, but also for the production of meanings that give a right its content.

Using the human right to water as a case study, we show that multiple actors—even those we do not typically consider "legal" actors—at various levels are involved in the process of norm development. Of course, international legal actors and bodies, such as norm entrepreneurs and the UN General Assembly, all make claims about the existence and meaning of the right. However, so do constitution-makers and national and local

legislators, constitutional court justices and trial court judges, interest groups, street-level activists and indigenous groups, corporations, and bureaucrats. Moreover, social actors often pursue a version of the right that is in direct defiance of the content of the right as defined by more narrowly legal actors, such as judges or legal scholars. These competing meanings arise out of the felt needs of particular communities or interest groups, and novel articulations of the right are especially likely to appear when existing legal frameworks do not meet the needs of the rights-claimants. In a very real sense, activists adjust the right to match the shape of their claim, rather than molding their claim to the contours of the right.

In this article, we first briefly describe the collected papers, and point out the insights they offer into the variety of venues in which the meaning and scope of the right to water has been contested, the actors involved, and the immediate politics of establishing, interpreting, and applying the right to water. The following section offers a more abstract account of the way in which we believe global rights emerge. The third section uses the articles from this Special Issue to go into more detail on the emergence of the right in different fields—the legal, political, bureaucratic, and social fields. The Conclusion then offers some final reflections on what we have learned.

2. The Articles in This Special Issue

Mathea Loen and Siri Gloppen examine the process that led to the incorporation of the right to water into the constitutions of Kenya (in 2010) and Slovenia (2016) [1]. They show that, although international actors and experts were present in these processes, the driving force came from domestic political actors, who are pursuing their own interests, and negotiating within their own constraints. The shape of the right thus ultimately reflects domestic interests and constraints, rather than international norm development.

Similarly, Lara Côrtes, Camila Gianella, Angela M. Páez, and Catalina Vallejo Piedrahíta review the constitution-making efforts in Brazil, Colombia, and Peru that sought to incorporate the right to water into those constitutions [2]. Again, they find not only that the content of the right depends on locally felt needs, and on the push and pull of politics in each context, but that the expectation of a right's bindingness—the extent to which it will actually constrain the actions of corporations and politicians—affects the likelihood that it will be incorporated at all. Peru adopted a freestanding right to water in its constitution, at the urging of groups that wanted to prioritize human access to potable water over livestock and agricultural uses. Meanwhile, neither Brazil nor Colombia adopted the right into their foundational texts, but the Constitutional Court in Colombia has established such a right anyway, while the lower courts (rather than the highest constitutional tribunal) in Brazil routinely intervene to prevent disconnections. This paper puts together research on constitutional drafting and judicial interpretation and enforcement to show how different opportunity structures and constraints shape the contours of the right in each country.

A paper by Namita Wahi on the judicial construction of the right to water in India continues this line of inquiry [3]. Wahi argues that the right to water in India has been developed by local actors "oblivious" to the way in which international activists have framed the right. Moreover, the right has been articulated differently by, and has operated differently for, two different marginalized groups, the Dalits and the Adivasis. For Dalits in India, the right to water is a part of their constitutional and statutory right against caste discrimination and untouchability, as they have been historically denied access to shared water sources by other caste groups. They have, however, successfully mobilized constitutional rights, and civil and criminal law remedies against this form of discrimination. For Adivasi indigenous groups, the right to water is inextricably tied in to their traditional rights to land, forests, and water sources. Their right to water claims has been asserted in the face of a disproportionately high threat of displacement on account of dams, irrigation projects, and other development projects, but this has been far less effective in providing judicial remedies.

In Brazil, Lara Côrtes and Ana Côrtes show the lower courts have been the ones primarily in charge of developing the right to water [4]. Most of the cases in which

the courts have recognized the right to water have involved two quite different claims. The greatest number, mostly stemming from a single catastrophic environmental disaster, assesses damages to people harmed by the contamination or interruption of the water supply on which people rely. The second greatest number imposes a duty to restore the water supply to people who have been disconnected.

Crucially for our argument, just as it is not always the constitutional drafters or the highest constitutional court that are empowered to declare and give meaning to the right, it soon becomes clear that legal actors, in general, do not always have the final word on the meaning of the right.

Arkaja Singh argues that slum residents in the major cities ignore the restrictive, pro-formal property rights, the version of the right that has emerged in the courts [5]. They take their claims, instead, to the municipal bureaucracies, where technocrats build a structure of access rights that rests on the inescapable normative foundation that everyone has the right to access the water they need for their daily needs. Although they work with engineering tools and concepts, and water service rules, the floor is set by the right itself, however poorly defined it might be. The same dynamic can be observed in South Africa. Jackie Dugard examines the "Zero Day" water crisis in Cape Town, South Africa—the run up to the day when the city was projected to run entirely out of water [6]. She shows how much the meaning of the right to water is informed by the immediate context out of which the claims arise. Even the legal tools deployed are conditional on the place and the need being addressed. Ironically, for example, some of the concepts used to ration water provided to the poor were deployed instead to restrict consumption by the wealthy, in order to make water use more sustainable. "Water justice" and "water governance" became the key phrases, but again, they are framed against a general principle that water is a fundamental human need. Here, it is claimants, environmental activists, and city officials who decide what the right to water will mean.

Even in the United States, a notoriously inhospitable political context for international human rights, social activists are at work building the meaning of the right to water. Sabrina Kozikis and Inga Winkler contributed an in-depth case study of the way in which social activists have deployed human rights language to challenge racially structured injustices in access to potable drinking water in the United States, specifically in California's Central Valley, Flint and Detroit, Michigan, and Appalachia [7]. They show how advocates seize on water rights language to challenge legal and regulatory regimes that deny them adequate access to clean water, or that have already harmed them and their children. As in India, they do so in defiance of the edicts of judges and other legal actors, who insist the right does not have any binding force and cannot ground their claims.

In the final article of this Special Issue, Christopher M. Faulkner, Joshua E. Lambert, Bruce M. Wilson, and Matthew S. Faulkner [8] use methodological advances in natural language processing and machine learning to examine the universe of peer-reviewed research on the human right to water and sanitation for the thirty-year period from 1990 to 2020. The article's findings help water researchers and practitioners "make sense" of the explosion of published research related to the human right to water and sanitation. In the decade after 2010, and coinciding with formal international recognition of the human right to water and sanitation, peer-reviewed research grew exponentially with almost three-quarters of all peer-reviewed articles being published between 2010 and 2020. Faulkner et al. also reveal the increasingly multi- and interdisciplinary nature of scholarship on HRtWS where legal scholars, for example, are increasingly likely to work in teams with engineers, political scientists, and/or geographers.

This collection of papers provides a rich resource for understanding how global rights are constructed more clearly, from a sociolegal perspective. In what follows, we elaborate on the details of our argument. We will explore the implications of this research for how we understand the source, meaning, and binding nature of rights. Moreover, we will show the implications of this new understanding for some of the critiques of rights—that they flatten local demands into straightjackets developed outside each context, or constrain activists

to denatured understandings of their own needs and claims. In contrast, we argue that, certainly from a sociolegal perspective, it is not the rights or the international actors or even the national courts that play the role of Procrustes to the activists' traveler, cutting off the parts that do not fit their accepted formulation of rights. However, it is rather vice versa: Locally rooted activists and communities most often seek, with admittedly varying degrees of success, to stretch or trim the right to fit their own needs.

In the next section, we describe the emergence of global rights and engage with the existing literature on the construction of legality. In section three, we illustrate these claims in different fields using the body of research collected in this Special Issue.

3. How Global Rights Emerge and Acquire Meaning

The International Covenant on Economic, Social, and Cultural Rights (ICESCR) left water out of the article, specifying a right to "food, clothing and housing". However, since that moment, a great deal of political and intellectual energy has gone into defining the right to water and enshrining it in law and among scholars investigating the impact of the new human right to water and sanitation [8]. General Comment 15 to the ICESCR (adopted in 2003) argued that the Human Right to Water and Sanitation (the HRtWS) was implicit in the ICESCR, stating, "everyone is entitled to have access to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use [9]". Seven years later, in 2010, the General Assembly of the United Nations "*Recognize[d]* the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights [10]". This statement was reinforced in 2015 by the General Assembly [11].

For some, this resolution was the critical moment in the struggle for water rights. On 16 July 2010, in the lead up to the General Assembly vote on this measure, Mikhail Gorbachev published an op-ed in the New York Times arguing that passing the resolution "is crucial to the ongoing struggle to save . . . lives [12]". As proof, he pointed to the fact that "Developing countries that have incorporated the right to water in their legislation, like Senegal and South Africa, have been more effective in providing safe water than many of their neighbors". A report at the time quotes a statement by the Board Chair and Executive Director of Food and Water Watch as saying the declaration is "a crucial first step to providing clean water and sanitation to all", and "an amazing and surprising victory for water justice" [13]. In this reading, the official recognition of the HRtWS is perhaps the most powerful act along the way to addressing the human need for water and sanitation.

At the same time, we could easily be skeptical of the value of the resolution. Does anyone truly disagree that water is essential for life itself? What possibly could a General Assembly resolution add to this awareness? Surely any failure to provide adequate access to water and sanitation is not due to a misapprehension of its importance. This back and forth about the efficacy of the right to water is just one facet of the larger debate about the effectiveness of international law in general and human rights law in particular. Scholars such as Susan Marks and Samuel Moyn have argued, respectively, that human rights have been either complicit in the neoliberal project, which has produced many of the conditions they deplore [14], or helpless in the face of it [15]. Eric Posner has argued that human rights can actually be hindrances to a more developmentalist approach that would effectively address the conditions [16,17]. On the other side of the argument are scholars such as Kathryn Sikkink, who point to a number of improvements in the human condition and credit human rights law and the human rights movement for those improvements [18,19].

In many ways, however, we feel the critiques are at least partly if not wholly misplaced, because they are overly focused on a purely legal and international-centric vision of how rights such as the right to water are constructed and actually work. Before we answer the efficacy question, then, we have to answer more fundamental ones: What does the global sociolegal construction of a right actually look like? How does the right become lived reality through political action? To answer these questions is, at the same time, to answer the question of whether (and how) the right "works." In our answer,

we draw on secondary literature, and on the fieldwork and experience of a group of researchers who have been examining mobilization and change around the human right to water and sanitation in Brazil, Colombia, Costa Rica [20], India, Kenya, Peru, Slovenia, South Africa, Turkey [21], and the United States [22–24]. Our approach is congruent with that of Eckert et al., who argue that law is socially constituted in a dialectical process of norm diffusion and adaptation that can lead to unpredictable results [25,26]. However, our conception of the process emphasizes the importance of local sites of norm creation, rather than mere adaptation. Our account depends much more on a notion of "rights at work", in the tradition of James McCann's scholarship [27], but, because we do not focus on one context alone, we call attention to the multiplicity of meanings that can be constructed out of a relatively vague and open-ended right.

One may object that whatever we might say about the right to water itself is likely not to be very informative about how other rights are constructed. Loen and Gloppen, and Dugard, in this Special Issue, note that the right to water is complex and lies exactly at the intersection of service delivery, technical provision, and administration [1,6]. Others have argued that the right to water is, with respect to its development, sui generis. Madeline Baer argues that the adoption of the human right to water and sanitation was different from historical patterns of international human rights adoption: It was adopted from below, against opposition from international actors, and largely took place "outside the human rights regime and without the active involvement of traditional rights gatekeepers [28]". We believe this distinction concerning the creation of the human right to water and sanitation is somewhat overblown. The Loen and Gloppen article in this Special Issue shows, among other things, the participation of these traditional gatekeepers even in the domestic context [1]. At the same time, it seems obvious that all rights are subject to resistance and contestation and the construction of localized meanings [29], and—this is the point of this article—all rights involve many actors beyond the "traditional rights gatekeepers."

Moreover, in a point we will return to later on, all rights involve some degree of bureaucratic governance—even the classically negative right to free speech, for instance, is processed through regulatory agencies, communications licensing, local government permitting, judicial boundary-setting, and, of course, a host of private actors who own the main outlets for speaking into the public square whether this be traditional media or social media [30]. In short, while the right to water may well be at the relatively high end of the spectrum for technocratic and governmental involvement, public and private cooperation, and state financing, it is by no means unique. The discussion that follows is, therefore, relevant to the development of many if not most rights.

How does a global right develop, then? Far from being a unified, instantly efficacious (or uniformly ineffective) edifice built by international legal actors, global rights as sociolegal constructions emerge from a loosely connected, decentered process of appropriation and deployment of the language of rights in various political struggles. Global rights, in this view, emerge from felt human needs in all different contexts, as activists explore different ways of articulating their demands. The emergence of a right in sociolegal terms runs parallel to formal legal developments in either international or domestic law-making spaces; and it is influenced to very different degrees in different places by those developments. Rhetorical and political uses of the language of rights interact with the language of formal legal rights, each informing and influencing the other. The result is a much more variegated process of norm creation, which leads to rights having very different meanings and binding effects in different places. Indeed, the same right might have a different meaning for different actors, in the context of different struggles, in the same political and geographic space. Although the right to water may be a paradigmatic example, we believe this decentered, disaggregated process describes, to one degree or another, the emergence of all the rights in our global repertoire.

The articles collected in this Special Issue of the journal illustrate this claim, demonstrating the variety of ways in which the right to water has been deployed to date in multiple contexts by multiple actors. This collection follows the development of consider-

able literature on the right to water, which we also review here. Faulkner et al. use natural language process and machine learning to systematically explore the evolution and topical trends in the academic literature on the human rights to water and sanitation over the past three decades [8]. They identify the scale of the growth in peer-reviewed publications and the pattern of the discourse on the HRtWS and how it changed over time. They note that since the creation of the HRtWS in 2010, research and publications on issues of "Water Security and Supply" became the most frequent topic, although other key areas, including research related to climate and water access, also grew significantly after 2010. The study also reveals areas that require more attention including "Water and Health" especially during the ongoing COVID-19 pandemic since access to safe water and sanitation is closely linked to beneficial health outcomes. The study also confirms that Schiel et al. reveal a paucity of scholarship on the impact of the Human Right to Sanitation [23].

Scholars have explored various aspects of both the bottom-up and top-down components of the process of developing a global norm. De Sousa Santos and Rodriguez Garavito, for example, speak of "counter-hegemonic globalization", one of the aspects that involve the deployment of law in what they call "subaltern cosmopolitan legality [31]". They describe a bottom-up process of resistance by subordinate actors who are pushing back against elite cosmopolitan legality. Meanwhile, analyses of "vernacularization" suggest a top-down movement of rights from the international sphere into the domestic, marked by different degrees of adaptation along the way [29,32]. Similarly, analyses of diffusion describe processes in which a set of actors carry ideas or innovations from one country to another in a relatively linear manner, without too much transformation along the way [33,34]. In each of these models, we could, in theory, trace an idea from its starting point through a series of processes to its final destination in a given context. The focus is on a linear process that transmits a norm, a right, a package of innovations, a set of ideas, from one place to another, with perhaps some marginal modifications along the way, but always centered on a core meaning or set of meanings.

In contrast, this collection of articles makes it clear that the development of a global right should not be understood solely as a unidirectional pattern of international development by global legal elites, and a subsequent top-down vernacularization; or as a process of norm development in the global center, with subsequent diffusion to the periphery; or as subaltern resistance from below; or even as a linear diffusion process of any sort, whether coming from the global north or the global south, that spreads a legal rule from one place to another in a traceable way. The development of a global "right" will, in fact, have elements of all of these, but it will also go beyond them, allowing for what we have called the decentered construction of the right: Multiple uncoordinated processes of norm creation coming out of a myriad of norm-creating spaces, only loosely informed, if at all, by the meanings invested in the norms by other actors in other spaces.

This process is most definitely not the exclusive domain of lawyers, legislators, or international actors. The global social construction of a legal right is a process in which the conventionally powerful and the conventionally powerless both have a hand; it is a construction by the North and the South, by globalized elites, and by thoroughly local subordinate actors. The common thread is a claim subjectively experienced as one for (a) a fundamental human need, that is (b) under some threat, and that (c) cannot be defended or asserted without breaking through ordinary social, economic, or political interactions. Invoking a right is a signal that the claimants feel a need for extraordinary *procedures*, as much as it is a signal that the thing to be protected is extraordinarily important. Rights claims, in effect, are demands to be heard and given agency in making the important decisions that affect some fundamental good that is under threat or missing altogether [35]. For the claimants, the structure and limitations of the legal right are something to be decided along the way, *with the participation of the claimants*, not something to be adopted from international or domestic formal norm-creators. It is, as much as anything substantive and specific, "the right to be taken seriously [36]".

Depending on the right in question—and especially when it is a right as simultaneously intuitively appealing and indeterminate as "the right to water"—we should expect as much of the development to take place in the space of social norms as in the space of formal lawmaking. The interaction of these multiple norms will be relatively chaotic. The claims made by different actors under the same rubric may well be mutually inconsistent. The final outcome—whose conception of the norm dominates, the possibilities and limitations of the norms, the bindingness of the norms in different arenas—is indeterminate. For these reasons, the meaning of a right will inevitably vary from one place to another. This is especially true initially, as a given right may, over time, become somewhat more determinate once expectations converge around a basic set of demands, and certain other demands are ruled out (on this last point, see Dugard, in this collection [6]).

If this is true, then it is often important to map the spaces in which and the actors by whom the right is being constructed. This parameter responds to a classic analysis of opportunity structures. Groups pressing certain rights claims will privilege the spaces where they believe they are most likely to succeed, and where their expertise leads them. In terms of their political geography, these spaces may be at the local, national, or international level, and there may be movement across these levels as advocacy demands. In terms of their relationship to the law, they may be strictly legal (courts, primarily, but also international human rights bodies), political (legislatures, international organizations, other rule-making bodies), technocratic (bureaucracies, privatized providers), or social; and again, the different spaces will interact with each other. Importantly, these are not merely the spaces in which claims are being disputed in light of norms with a pre-set meaning; it is the meaning of the norms themselves that is often at stake. The shift to a new venue is often a response to a constraining meaning developed in the original one—so, for instance, activists who find the legal construction of the right too limited will take their claims to the streets or the halls of the bureaucracy. The first step in mapping the social construction of a right, then, is exploring the spaces in which the meaning of the right is being contested and constructed, deployed and resisted.

Although largely neglected by the literature, we wish to highlight that the right to water is also being constructed in the third space we identify above, the technocratic or expert space. Several papers in this issue point to the bureaucratic space, such as Singh [5], Cortes and Cortes [4], and Dugard [6]. This is a space that is generally inhospitable to rights claims, unless they can be safely formulated, but that interacts closely and frequently with the other spaces. Bureaucratic rule-making and decision-making have a number of tensions within it that shape the realization of the right: Tension among technocrats; between them and the political actors to which they often respond; and between them and the frontlines, where we find an interface between the social and the political. It is in some ways legal, in that it produces binding regulations, but also purely administrative, in that it is charged with bringing the right to ground (laying pipes, for example, in the case of water rights), and even judicial, in that it often adjudicates claims made by users, and in the process determines who does and who does not have a valid claim of right. Any analysis of the process by which a right acquires meaning and produces actual outcomes cannot afford to neglect the technocratic, bureaucratic space that is in frontline interaction with the social.

Many of the court cases pertaining to the right to water originate in this space. Right to water claims often emerge in response to the typical service delivery issues, such as the failure to provide individuated household connections, temporary shutdowns and supply faults, and disconnections against non-payment of bills. In fact, the presence of a large number of individual service-related claims might merely indicate the existence of a legal-institutional framework for the delivery of water as a consumer service (and connectedly, the presence of water companies to provide this service) [4]. As a daily matter, then, the decisions made in these spaces bump up against internalized understandings of the right to water.

For these reasons, it should be no surprise that courts in Brazil are able to recognize the existence of the right to water even without a free-standing constitutional right to water.

The regional diffusion of right to water discourse helps, of course, but so does a widely felt sense that water can never be entirely commodified into a consumer service. Right to water claims come from the poor, informal settlement residents, and historically disadvantaged communities. At times, it appears as if courts have to choose between the governance framework and a human rights framework. The rights of companies are structured by legal and regulatory processes within a logic of service delivery, but these may yet have to contend with vulnerable peoples' claims for human dignity and justice. Whatever the immediate source of the claim, the right to water seems both necessary for the continuing legitimacy of the legal-institutional framework—that is, the latter is evaluated in terms of its contribution to the former—and a counterpoint to its excesses, setting the boundaries for the operation of lower order laws. The interaction between the two frameworks will ultimately determine the content of the right in a given space.

All these processes of norm creation will be animated and held together by a common element that defines them—a shared felt human need. Sometimes this felt need will be more abstract, such as the need for freedom to express one's identity, or context-specific, such as the need for dignified work. Sometimes the need will be for a service such as healthcare; or for a very concrete good, as in the case that we examine here, for water. However, the demands surrounding this common element, and the ways to satisfy the felt need, will most often be radically different in different contexts. In this sense, the creation of a right is, in sociolegal terms, the creation of a shell into which different actors can pour meaning, in response to the dynamics of their economic, social, and political environment.

Because legal claims often derive their authority from the nature of the lawmaker and the propriety of the lawmaking process, this decentered, mutually competing process of norm creation means that the authority of the claim will also be contested. Far from being an automatic trump card, the "bindingness" of the claim of right will depend on how it is constructed in a particular legal, social, or political space. It may be that a right understood in a particular way, with a certain reach and certain limitations, will be binding in a legal context, while a very different—perhaps more capacious, perhaps more restricted—understanding of that right will be "binding" in social and political terms. This is a central point of Dugard's contribution to this collection, on water rights claims in South Africa. That is, when it comes to its use in political mobilization and social discourse, a right may well shed many of the attributes and limitations that are so carefully built into it by academics, lawmakers, and even judicial interpreters, and may acquire new ones.

In those cases, a right might be "binding"—because no sane politician would oppose it, or because it successfully draws people into the streets or into the ballot box—to an extent and in a way that is quite different from how it is "binding" in a court of law, just as it may be different from one court to the next. A socially constructed right may be efficacious because it affects the legally binding decisions of authoritative actors, or because it changes dominant social norms and thus affects the decisions of many individuals, or because it reshapes the political action of particular groups. It should be no surprise to any scholar of law and society that the latter two avenues may well be the most effective—and thus authoritative and binding, in a very real sense—of the three.

Given levels of non-compliance with court decisions, whether international and domestic, with constitutional provisions and treaties alike, with government programs as much as with legislation, to evaluate the bindingness of the right we must seek to measure the efficacy of the invocation of a claim of right. As Maravall and Przeworski put it, "To be able to say 'This will never happen because the logging interests oppose it' is as good a base for predicting what the government will do as a constitutional provision against takings [37]". Similarly, to say the government will provide water because it would be political suicide not to, is as good a base—indeed, a better one—for predicting the realization of the right to drinking water as the adoption of a General Assembly Resolution or a constitutional amendment.

This calls us to an analysis akin to what Brinks, Levitsky, and Murillo prescribe for determining the strength or weakness of an institution: The challenge is to determine

the extent to which invoking or internalizing the right has causal efficacy in changing behavior, either through enforcement or more voluntary forms of compliance [38,39]. Sometimes this is straightforward. We can see courts in Colombia and elsewhere imposing the right and ordering compliance, and we can see the effects of those decisions. However, the collection of papers in this issue demonstrates that the widely internalized, if mostly undefined, notion that everyone has "the right to water" can serve as a foundation upon which other constructs will rest, such as water governance or water justice in Cape Town, or bureaucratic processes that structure water provision. The right sets a floor, or creates the inescapable need, and in this sense is binding, even though it will require further normative development to determine the precise contours of what people or communities will ultimately receive. In these cases, it is more difficult to disentangle the efficacy of the right itself, as opposed to adjacent normative claims such as water justice, equality, or the right to dignified housing.

If the process is radically decentered, arises out of a multiplicity of claims, and produces often inconsistent versions of the same "right" in different contexts, what can we say about it that is systematic and true to the whole? What do all rights claims have in common, if anything? First, we believe the appeal to a claim of right has a common foundation across all these differences: The appeal to rights is grounded in the sense that there is something fundamental to human existence that is at stake and is threatened by conventional power dynamics in that context. That is, the group asserting the claim seeks to protect something that is perceived as a core value, on which many other things depend, and which is fundamental to human dignity. Crucially, they seek either to preserve the status quo in regard to this value from a perceived threat coming from economic, social, or political changes, or to establish a new status quo that challenges existing economic, social, or political structures. The language of rights and the appeal to an international right in particular serves to ground the claim in something that is outside the immediate legal and political context.

This is a more general response to a more general version of the question posed by de Sousa Santos and Rodriguez-Garavito in their volume. "Who needs cosmopolitanism? The answer is straightforward: whoever is a victim of local intolerance and discrimination needs cross-border tolerance and support; whoever lives in misery in a world of wealth needs cosmopolitan solidarity; whoever is a non- or second-class citizen of a country or the world needs an alternative conception of national and global citizenship [40]". Similarly, who needs rights? Whoever feels they need a stronger hand in negotiating their political, economic, and social context in order to protect a threatened fundamental good. Elites turn to rights when they feel their hold on power slipping and they perceive a need to guard against social, political, or economic change [41]. Politically marginalized groups turn to rights when they feel mechanisms of democratic representation are ignoring their demands [42]. In general, it is clear that people on the margins of society turn to rights when they feel their full humanity is not being recognized. Economically vulnerable people turn to rights when market interactions threaten to deprive them of fundamental needs, such as when the anti-privatization movement seized on the right to water. Whether the claims would stand up to legal scrutiny in a court of law or in academic debate is a secondary consideration, something to be constructed through political struggle, perhaps. The appeal to rights is simply a claim to normative precedence: Our claim to clean drinking water supersedes your arguments about fiscal sustainability, your claim to economic development goals, and your contractual entitlements.

As Rajagopal notes, "the outcomes of social movements' engagements with the law are highly uncertain in terms of their impact either on law or on the movements themselves" [43]. Our account overlaps significantly with this account of counter-hegemonic globalization and its indeterminacy, but he is much more concerned than we are about the extent to which "the languages" of law and social movements "collide, producing moments of incompatibility that cannot be easily resolved". This, and the related critique of rights as depoliticizing, demobilizing, and denaturing social demands, assume that social

movements internalize and incorporate the limitations of the explicitly legal language and mechanisms of rights when they assert them. Sieder notes that "juridification has been understood as a form of legal framing, whereby through the process of claiming rights people come to see themselves as legal subjects" [26] (p. 2). By identifying as legal subjects, participants in this bottom-up process are liable to be disciplined by "courts or other agents, such as NGOs or international organizations" who "demand certain standards of legal and organizational 'legibility' from subjects [44]" (Sieder, pp. 2–3, describing a position found in the literature).

Turning this on its head, we argue that people are making their demands legible through the lens of rights, without necessarily subjecting themselves to that disciplining process. Indeed, whether the process limits their political imagination is, in our view, exactly what is at stake. Sieder highlights that "formal law is just one sphere of action in political struggles and . . . the imaginaries of justice of different individuals and groups rarely coincide entirely with the way justice is framed in legal terms, even by the NGOs and activist networks who litigate cases on behalf of the marginalized and dispossessed [26] (p. 4)". Whether it is African Americans claiming a human right to potable drinking water in the United States; an indigenous group claiming a right to control the flow of river water in their territory in Colombia or Peru; or a neighborhood claiming priority of household drinking water over water for "economic development"; the demands are often immodest, open-ended, unstructured, and in excess of what a legal analysis would support.

Of course, felt needs do not always lead directly to rights claims, and even more so, to an assertion of a novel right. The article by Cortes and Cortes, in this issue, shows that it is not always the neediest regions in a country that have the highest number of legal claims [4]. In South Africa, there are long-standing problems with access to drinking water, and yet there is little contestation [6]; while in India, there is systemic deprivation for urban informal settlements [5], and amongst historically disadvantaged groups [3] that are not contested in right to water terms. We have extensive literature that shows that legal mobilization depends on many factors—such as the resources of litigants [45], the receptivity of the courts [46], and other factors. The choice of strategy is not a straightforward function of a felt need, but is dependent also on claimants' resources, and the opportunity structure they confront. Occasionally, the sociolegal construction of a right will rule out certain types of claims—at least for a time, at least in a particular context.

However, the meaning of a right is not static. A novel claim of right—a claim that uses the language of rights to present new demands, or old demands in new language—is a signal that more pedestrian, more accessible alternatives are not available, and may well seek to transform settled meanings. A new claim to the right to water—as in Flint, or in constitutional amendments in Peru, or rights-based litigation in India—highlights the insufficiency of the existing legal framework for addressing the needs that trigger the demand. This is especially true when we see rights language in a context in which we would not expect it, such as in the United States, which has a legal field that is inhospitable to claims grounded in international human rights.

Given what we have said so far about indeterminacy and the multiplicity of meanings and expressions that can fall under the label of "right to water", how might we delimit one claim of right from another? What makes this claim a "right to water" claim, if its boundaries are so fuzzy that they can accommodate a demand for potable water from a tap for a household, and a territorially and culturally based claim to sovereignty over the waters of a river? In assembling this collection of essays, we have largely taken people at their word: If they claim the right to water, using that or equivalent language, then we have included the claim. In many ways, adopting a sociolegal approach to understanding the emergence and significance of the right compels this criterion. The question we are addressing, quite simply, is what do people understand by the right to water? In what follows, we answer this question, drawing on the contributions to this edition of the journal.

The development of the "right to water", as explored in the various articles that make up this collection, followed the pattern we have laid out here. The right emerged from

domestic and international norm-making spaces, from the informal and the formal, picking up normative weight and a multiplicity of meanings along the way. Early on, it was formalized in constitutions, in the service of domestic anti-privatization efforts, which then (partially) informed the drafting of General Comment 15 in 2002. More recently, the UN General Assembly threw a resolution into the mix, raising the profile of the international component but focusing more on access than ownership. International legal language shapes but does not dictate the content of subsequent domestic constitutions, each of which addresses a particular domestic reality and is, in turn, shaped by a domestic set of power relations, and by the preexisting infraconstitutional norms of that place [1,2]. In countries without an explicit constitutional right, courts and judges add their own contributions to the meaning and legal texture of the right to water [3–5].

Not all the development takes place in legal spaces and texts. From the informal spaces, social movements lay claim to the language of rights to address injustice and exclusion, building new layers of meaning and obligation [7]. Indigenous groups add a thread of collective cultural and territorial rights to control and protect rivers [47], while urban groups attach the right to demands for equality and water justice [6], dignified living conditions, and potable water provision [5], and environmental justice [3]. The result of all this is a tapestry of meaning, multivalent although not fully indeterminate, that underpins varied legal and political strategies and seeks to give normative force to claims made in different contexts by different groups.

In summary, this section lays out the basic features of the socio-legal construction of a right. We argue that the process by which rights are created and acquire meaning far exceeds the activities of a relatively small group of privileged legal actors at the center of the international arena or constitutional processes. In fact, the conventionally powerless—marginalized groups, peripheral countries, protesters, bureaucrats—can all contribute as much to the content and bindingness of the right as scholars and lawyers in Geneva or London, or distinguished statesmen in the halls of constituent assemblies. These groups turn to the language of rights to signal that there is something at stake that is essential to their dignity and survival, something that is being denied or threatened by the ordinary social, political, and legal processes of their context. They reach for rights to ground their claim in something that exceeds what their immediate political community is willing to provide. Rather than the right constraining demands to what legal experts sanction as the proper extension of the right, very often the felt needs shape the right and give it new meaning. In this way, the same right can come to have very different meanings in different communities around the world. The next section of this article explores how these contexts shape the claims that are made.

4. Rights at Work in Different Fields

4.1. Claims Asserted in the Social Field

The most cursory look at what is happening around the world demonstrates that not all claims for the right to water are litigated in court. Social mobilization has been frequently and effectively used to make claims against water management and resource privatization, and to secure access to a minimum core of water and the self-determination and prior consultation rights of indigenous peoples, as well as in disputes over the contamination and exploitation of water sources. In this edition of the journal, we see this most clearly in the article by Kozikis and Winkler, on social mobilization in the United States, but also in the article by Singh, which describes the interaction between urban residents and municipal technocrats in India [5,7].

In contrast to claims that rights-claiming denatures the original demand by imposing meanings from above, it is clear that this process is often independent and openly defiant of attempts by conventionally authoritative actors to give it meaning, or to circumscribe it. For example, the article by Kozikis and Winkler examines the protests against the lack of access to clean drinking water in the United States [7]. The authors show first that even in one of the wealthiest countries in the world, significant water access crises

exist where the population is unable to realize their human right to water and access clean, affordable drinking water. These crises result from water contamination, price gouging, and water shut-offs compounded by crumbling infrastructure, in communities marginalized by racism and government neglect. In material terms, the demands arise from the communities' sense that they are being actively harmed by local governments that disregard their most basic human needs. In political terms, the turn to rights language is in part driven by the unresponsiveness of the local government and water agencies, and the absence of an adequate alternative legal language to express their demands.

The United States is a particularly unlikely place for a human rights-based campaign to arise. The country generally does not consider itself bound by many international human rights laws and guarantees. It has never incorporated social and economic rights into its constitution, and legal actors often express skepticism regarding such rights. Indeed, in the cases that Kozikis and Winkler examine, the courts regularly rejected plaintiffs' arguments based on a right to water. Yet, even in such a hostile legal environment, grassroots human right to water movements emerged, and employed human rights approaches to a significant effect. While not "binding" in a legal sense, these groups found that the right to water had causal efficacy in different arenas. Human rights language was highly effective in animating and mobilizing mass street demonstrations; coupled with more cooperative approaches, it informed appeals to lawmakers and shaped concrete proposals and plans; and on signs and slogans and in journalistic accounts, it brought public awareness to the gravity of the situation and pushed back on conventional understandings of water as a mere commodity. The claim to a right to water universalized the demand, drawing a bridge from the experience of a particular marginalized group to the rest of the political community.

4.2. Claims Asserted in the Bureaucratic Field

When we look at the realization of the right in cities, in particular, it becomes clear that the central actors are often the water agency bureaucrats; the public utility and private water company officials who evaluate the economic viability of different arrangements; and even the engineers that design and implement water and sanitation systems. We cannot neglect either the internal dynamics of this space, or the ways in which it interacts with public officials on the one hand, and the public on the other.

Multiple constructions and competing mobilizations of the "right" may not be mutually reinforcing in that the actors who mobilize the idea of rights do so in aid of their own struggles and causes, without necessarily building up to a coherent vision of a right. In fact, they may even reformulate the language and content of the right in such a way as to empower them in their local struggle for well-being. Illegal squatters in India focus their efforts on the 'everyday reality' of municipal administration, choosing to work within a framework that grants them a lesser claim on the city water supply, instead of seeking redress and recognition of a more comprehensive right to water from the courts [5]. This is because the former serves to secure their claims to tenure and location *along with* improving claims to drinking water.

A neoliberal state might prefer a formulation of the right to water—one that reinforces, say, the provision of potable water and sewerage to formal, duly titled, neighborhoods—that is consistent with its power to relocate and resettle the illegal squatters, and to reorganize and clean up water service operations. The right to water formulation offered by the Indian courts is in line with the idea. For this reason, claimants view the municipality as a more congenial space, although not one that offers ready-made success. The municipal process is full of uncertainty and requires the poor and marginalized to be able to mobilize both procedure and politics, for they must negotiate with competing actors and visions, with other competing claims in the making, and within other already-established rule-frameworks.

This pushes the debate about the content of the right to water into a bureaucratic space that is more concerned with technical than legal concepts, with possibilities than with aspirations. However, the right to water provides a backdrop for the debate, as the

entire discussion in bureaucratic spaces is premised on the notion that people must have access to water.

We do not wish to leave the impression that these claims are always successful, that they add up to a legally coherent jurisprudence of the right to water, or even that the emerging meanings are always enabling of claims to more access to water. In her paper in this Special Issue, Dugard asks why there are relatively few cases in South African courts, and especially in the constitutional court, that relate directly to the right to water at all, in spite of the existence of a constitutional right to water [6]. Water-related problems persist, and so do opportunity structures that allow for contestations around socio-economic rights, but she argues that expectations around the meaning and scope of the right have been settled in a way that puts the problem of intense inequality (in society, and in relation to water) off-limits in legal terms. In her investigation of the right to water in the context of Cape Town's Day Zero crisis, Dugard finds that 'water governance' was the dominant framing through which various interlocutors viewed a looming climatic crisis in which running out of water was a very real (although ultimately averted) possibility. Hardly anyone invoked the right to water, but water justice, and the lack of it, seemed to be of continuing relevance in how people made sense of the situation.

The fact that the crisis forced wealthy people to face the same situation that the poor lived with every day was not lost on anyone, and it was interesting that "water management devices" (which reduced water supply to a trickle to limit revenue loss in low-income areas) were deployed for the first time in high-income areas to limit consumption to quantities comparable to what poor households accessed as "free basic water". These techniques were first developed to restrict poor people's claims on water, and in previous legal challenges, they were deemed to be constitutional. There are some signs for the future in this narrative, with the possibility of claims for water justice becoming increasingly relevant as climate change sets limits on economic rationality and water governance in the management of resources and supply systems. Paradoxically, then, the right to water might come to justify limiting access, in order to ensure sustainability and water justice.

4.3. Claims Asserted in the Political Field

Similarly, new rights often become the rhetorical currency with which old postures are attacked and new demands are posed in the political arena, in places in which human rights rhetoric has a great deal of political purchase. In Peru, for instance, the language of human rights gained currency in the aftermath of an insurgency, repression, and a successful transitional justice effort. As a result, the right to water was easily adopted into the national constitution, and is now a legitimate basis for claims to access to piped water, within the context of "the existing legal and institutional frameworks for water protection [2]". However, its political efficacy was partly conditioned on its perceived legal inefficacy, in that the interests most opposed to a universal right to piped water assumed the legal system would not be an effective mechanism for enforcing the right. In Peru, then, the right to water was more "binding" in the political than in the legal field.

In contrast, where human rights are seen as a foreign imposition, rights talk is noticeably absent from the corridors of power—oddly, the case here is the United States. As much as the right was efficacious in the social field, the language of human rights is not the principal frame used in either the national or the state legislatures in the United States. As much as the language of human rights has gained currency among activists of various sorts, neither courts nor politicians are willing to embrace it.

4.4. Claims Made in the Legal Field—Constitution-Making and Judicial Construction

4.4.1. Constitution-Making

The examination by Loen and Gloppen of constitution-making in Kenya and Slovakia [1], and by Cortes, Gianella, Paez, and Vallejo of constitution-making in Brazil, Colombia, and Peru [2], shed considerable light on the development of the right in constitutional texts. Collectively, these articles demonstrate that, even in the highly formalized

world of constitution-making, the right to water can take on very different meanings in different places, in response to different felt needs and institutional contexts. They show that, for all their visibility, international actors typically take a back seat to domestic actors and local power dynamics when it comes to specifying the content of a right in a particular constitution for a particular place. Cortes, Gianella, Paez, and Vallejo, in particular, show how constitutionalization can be a protective response when longstanding arrangements that had earlier been simply a matter of ordinary legislation come under threat [2]. These articles put local politics at the center of the evolving development of the right to water.

It is sometimes easy to imagine the diffusion of rights into constitutional texts as a mostly unexamined process of simply adopting whatever rights are currently in fashion, perhaps at the urging of international norm developers. In contrast, Loen and Gloppen and Cortes, Gianella, Paez, and Vallejo demonstrate that the introduction of the right to water into domestic constitutional texts responded primarily to a domestically driven calculus, and was shaped by the struggles that prevailed in each country [1,2].

In terms of the meaning of the right, there was clearly a cooperative effort early on between international actors on the one hand and constitution drafters in Bolivia, Uruguay, Ecuador, and elsewhere on the other, in a first push to use the right to water as an anti-privatization tool [2]. However, by the time it is incorporated into the Peruvian constitution, the right to water is not at all doing that anti-privatization work, focusing simply on extending access to piped water to individual households, however supplied. In fact, in Kenya, the right to (access) water and the privatization of supply are seen as going hand in hand [1]; and in India, the courts' interpretation of the right to water has a similarly privatizing intent, aiding in the displacement of informal settlements in favor of supplying water to titled properties in formal neighborhoods [5]. In some contexts, then, the anti-privatization right to water becomes instead an ally of neoliberal efforts to privatize supply.

Furthermore, domestic politics are also never absent from this process. In Peru, it is clear that the right can more easily be adopted because the weak enforcement structure reduces opposition [2]; in Kenya, although international actors and examples play a role, local actors dominate the actual process of negotiating and drafting the document; and in Slovenia local actors and grassroots efforts dominate the politics of constitutional amendment [1]. Meanwhile, in Brazil and Colombia, the right fails to be adopted precisely because it is expected to be too costly and constraining for the dominant power players [2]. Far from simply responding to global fads, Loen and Gloppen say that in Kenya "including the right to water in the constitution responds to a colonial past and the country's subsequent economic and political history and reflects a determination to reduce poverty and inequality through development" [1]. We could say something similar about all the countries whose constitutional processes are described in the papers included in this Special Issue: The decision to adopt the right to water responds to each country's past and its political economy, and will take on a meaning that responds to that country's dominant political project.

4.4.2. Judicial Construction

However, the process of infusing meaning into a constitutional right only begins with the drafting of the text and is developed in much more detail subsequently through judicial interpretation. If a country's political economy and institutional context informs the initial drafting of the constitution, it is clearly dominant in the subsequent judicialization of the right, as illustrated in this collection in the articles by Wahi on India and Cortes and Cortes on Brazil [3,4]. There was, in fact, no free-standing constitutional right to water in India or Brazil, but that did not hold back the petitioners who claimed this right, or the courts who were able to find this right from existing constitutional rights. What the petitioners asked for, and the outcomes of judicial processes, were, however, shaped by what was possible in the given political economy and institutional contexts. This is not to say the gains of judicial construction are irrelevant, for judges and courts can provide practical and symbolic meaning to rights claims.

Judicial recognition of the right to water in Brazil built on regional normative developments and a national framework of rights that was supportive of the right to water. It also derived relevance, immediacy, and specification from the existence of regulatory and service delivery frameworks, and institutional paraphernalia of water privatization. This is the space in which Brazil's regional courts provided consumer protection, and protection against disconnections to indigent litigants. In India, there was a political dynamic in the Supreme Court's rush to become the people's court, which provided the opportunity for petitioners to formulate their right to water claims. In these cases, we see the advancing of claims for social justice, environmental rights, protection against displacement, and indeed the right to drinking water.

The effect of a right on strategies in the legal field will depend on a more traditional legal opportunity structure analysis—what is the legal status of the right, how receptive are the courts, what is the claimants' organizational capacity relative to the demands of the judicial structure? However, not all of these claims are successful, and the gains that petitioners make on the ground remain uncertain. The fact of mobilizing a court with these claims reflects perhaps the lack of other options, such as in indigenous people's struggles against displacement. More hopefully, it could also be that the right to water helps provide a recognizable legal identity to their situation and helps provide an organizing logic to their claims for recognition and justice.

In addition to working within one or more of these fields, claimants may operate within different political geographies. "Whilst processes of judicialization for the most part occur in national courts, the overlapping and multi-scalar nature of global legal pluralism is a defining feature of contemporary forms of juridification: the contractual rights and obligations of states and global financial capital are routinely fought out in the courts and arbitration tribunals of London, Geneva and New York rather than in state courts, whilst those seeking redress for gross violations of human rights often simultaneously pursue their claims in national, regional and international forums [26]".

This section shows that, following the logic of opportunity structures, rights claims migrate to the social or bureaucratic fields when the legal and political fields are inhospitable; similarly, they emerge as legal or political claims when they are likely to gain a positive reception there. The case studies validate many of the observations made in Section 2: That rights are more likely to be taken than granted, and that claimants often construct the meaning of the right in open defiance of the opinions of experts in international or constitutional law. We see some evidence that rights can be binding because of their efficacy in creating negative consequences for the relevant actors, and not so much because legal actors are willing to issue commands backed by the power of the state. The richness of the case studies is, in large measure, due to the multiplicity of meanings, actors, venues, and demands that can be found wherever the right to water is claimed.

5. Conclusions

What the various articles in this Special Issue illustrate through their detailed studies is that no one owns the process of building the meaning of human rights or how they are animated; the creation of the Human Right to Water and Sanitation provides an excellent example of a decentered construction of rights. That is, rights arise when something fundamental is threatened or missing and people need a language to express that deep need to draw attention to the issue.

As many cases show, the claim of new rights (or established ones) tends to arise when harmed parties are unable to receive redress from the existing political context; adequate responses from bureaucrats, politicians, judicial personnel are not forthcoming. In these contexts, rights can develop multiple meanings depending on the context in which they are used, and these rights claims, because they are frequently coming from the bottom up, are not necessarily used in the same way in different contexts and/or have the same meaning. The case studies illustrate that the use of the Human Right to Water developed different meanings in legal, social, political, and bureaucratic spaces, at the international,

national, and local levels. The case studies also bring to the forefront the complexity of rights claiming, even in cases where an international human right has been established. How those rights are filtered down and implemented to the national and even subnational level is shaped by numerous processes that include a host of variables, different in each context—available resources of those who are in need of protection, political and legal opportunity structures, political allies, governmental priorities, institutional structures such as the locus of the relevant decision making, and so on. This web of factors, once untangled, can better account for the extent to which specific rights exist, how they are animated, and the extent to which they are enforced in different international, national, and subnational contexts.

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Article

The Human Right to Water and Sanitation: Using Natural Language Processing to Uncover Patterns in Academic Publishing

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Abstract: After years of advocacy and international negotiation, the General Assembly of the United Nations voted to officially recognize a stand-alone human right to water and sanitation on 28 July 2010. Since, academic scholarship has continued to grow in an effort to understand the implications of the codification of this human right. Yet, with this growth, it has become impractical if not impossible for scholars to keep up with the advancement of academic knowledge or to make sense of it in a systematic way. In short, to date, we know very little about the trends in the literature as they have unfolded over the past thirty years and the topics to which scholars have devoted significant attention within the broader field, particularly over time. This is an important area of inquiry, as developing a comprehensive understanding of where prior literature has focused and where it appears to be going offers scholars an opportunity to identify areas in need of refinement and/or increased attention. Given the practicalities of reading thousands of research papers each year, this project utilizes natural language processing (NLP) to identify topics and trends in academic literature on the human right to water and sanitation (HRtWS). NLP provides the opportunity to digest large quantities of text data through machine learning, culminating with descriptive information on trends and topics in the field since 1990. The results of this exercise show that the research related to the human right to water and sanitation has grown exponentially, particularly over the last decade, illustrates the multidisciplinary nature of the literature, and demonstrates the diversity of topics in the field.

Keywords: water; sanitation; human rights; human right to water and sanitation; HRtWS; natural language processing; machine learning; text analysis

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1. Introduction

Making sense of the expansive literature on the human right to water and sanitation (HRtWS) is understandably difficult. The multi- and interdisciplinary nature of the research on this topic, intersecting with academic fields such as law, political science, health, engineering, sociology, environmental studies, and geography, to name a few, can make it challenging for scholars to "keep up" with the diverse array of trends and findings in extant literature. In fact, the number of papers investigating topics related to the human right to water and sanitation has grown exponentially, with nearly 75 percent of articles since 1990 being published within the past decade (2010–2020).

This manuscript seeks to synthesize the last thirty years of research on the human right to water and sanitation by utilizing methodological advances in natural language processing (NLP) and machine learning. These strategies afford researchers an opportunity to "make sense" of large amounts of data that individual researchers may have difficulties

both identifying and unpacking. Moreover, this strategy is particularly attractive as it widens the lens—allowing us to truly explore the field's multidisciplinary nature as well as the interdisciplinary approaches within academic scholarship on these topics. Put differently, while individual researchers may be able to engage with a wide array of academic scholarship there are undoubtedly practicalities and shortcuts that she/he/they may adopt in an effort to be as efficient as possible. Such strategies might include focusing on specific journals that align with the researcher's respective field(s) of inquiry or filtering for literature that has been published by well-established and highly cited researchers. These efforts certainly make sense given time and human constraints that make digesting large quantities of research difficult, but they are inherently limited and can result in the unintentional neglect of important studies and insights in the field or missed opportunities to engage with cross-cutting literature. We believe that this is an important gap, one which our study aims to fill.

Our approach helps overcome these practical limitations. Natural language processing and machine learning provide a systematic way to extract and analyze large quantities of text to identify and uncover patterns across publications [1]. Edgcomb and Zima [2] for instance, illustrate how such approaches allow researchers an opportunity to synthesize available literature to make practical improvements in the quality of mental health services and care. Similarly, Fisher et al. [3] use these strategies to explore the state of the literature in the fields of accounting, auditing, and finance, providing both a repository of knowledge as well as a path for future research. Such efforts are visible across a diverse array of academic disciplines, but to the best of knowledge, have not been undertaken in the field of human rights—and specifically concerning the human right to water and sanitation. For example, while scholars have used text and data mining tools, natural language processing, and machine learning strategies to help predict legal decisions at the European Court of Human Rights [4], to explore patterns in ways in which human rights are reported on over time and space [5], or to understand water disputes at the subnational level [6], the field is devoid of studies that use these tools to synthesize the literature in a way that offers a concrete digest and understanding of where the literature has been and where it is going.

From our perspective, the present study is not only interesting but imperative so that scholars have a more complete sense of how academic scholarship has evolved over the past three decades. Our topic modeling approach is also useful in the sense that it can help researchers (and policymakers) explore potential gaps in the literature on the HRtWS. Moreover, identifying trends in the literature in terms of temporal patterns of when and which topics are being addressed can further improve our understanding of how research changes (or not) in the aftermath of significant policy changes and/or advancements in human rights such as the United Nations' official codification of the human right to water and sanitation. Taken together, our project enables more rigorous thinking about the ways scholars organize their research and gives researchers and practitioners a foundation from which they can advance their own research efforts on the human right to water and sanitation.

The remainder of this paper is structured as follows. The Section 1 presents a brief discussion on the evolution of the human right to water and related literature. Section 2 provides an overview of the data and methods utilized in our empirical strategy. Here, we focus our attention on our data collection procedures and the logic of natural language processing and machine learning as cutting-edge tools that enhance our opportunity to more fully engage with the large quantity of research to date. Sections 3 and 4 report the results of our empirical strategy presenting details about temporal trends in the literature including the specific journals in which papers on the human right to water and sanitation are most frequently published and the topics that appear to be most prevalent within these articles. We conclude with a discussion of the results, summarizing the general patterns observed and the implications for future research.

2. The Human Right to Water and Sanitation

Although water is an essential component for all human life, it was not included as part of the landmark United Nations Universal Declaration of Human Rights in 1948. Rather it took more than 60 years before the United Nations General Assembly finally recognized access to sufficient, affordable, accessible water and sanitation as a standalone right "essential for the full enjoyment of life and all human Rights"—United Nations Resolution 64/292 [7]. The glacial movement to create human rights to water and sanitation took many decades and the efforts of diplomats, activists, and academics pushed in many different international arenas. The first major step toward recognizing a human right to water and sanitation came when a human right to water was identified and derived from language contained in the 1966 International Covenant on Economic, Social, and Cultural Rights (ICESCR). In the following decades, the 1979 Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), and the 1989 Convention on the Rights of the Child (CRC) both explicitly recognized the Human Right to Water and Sanitation.

In 2002, General Comment 15 of the United Nations Committee on Economic, Social and Cultural Rights (CESCR) clearly stated that the HRtWS was explicitly and "inextricably" linked to existing human rights including the right to an adequate standard of living extending to food and housing (Article 11) and the human right to the highest attainable standard of health (Article 12) [8]. Furthermore, General Comment 15 encouraged states to "domesticate" the human right to water to encourage policymakers to improve the provision of access to clean, affordable drinking water [9]. This movement towards creating standalone human rights to water and sanitation culminated in the UN declaration of water and sanitation as a human right in 2010. This right created a wave of optimism that swept through the international community with many scholars and practitioners expecting significant, lasting benefits on public health and standards of living as a result [10,11].

In tandem with these international developments that gradually recognized the HRtWS was a vibrant, expansive academic and grey multidisciplinary literature that used various lenses to examine the potential value of elevating water and sanitation to standalone human rights [12,13]. Several studies examined various relationships between water and sanitation rights and other issues such as health. Studies have demonstrated the link between a lack of access to safe, affordable, and clean drinking water and sanitation on the one hand and increased incidence of potentially fatal diseases such as cholera, typhoid dysentery, and diarrhea resulting in diminished aggregate health indicators and increasing incidents of childhood development problems and early death [14]. Other research focused on the economic problems resulting from a lack of access to clean water and sanitation [15] or the debate over the nature of water: is it a public good, or an economic commodity to be privatized and sold at its market price? In response to many countries' adoption of neoliberal economic policies that included the privatization of previously state-owned water providers, many scholars focused on water privatization and its highly publicized and disastrous impacts on access to water for many marginalized people around the world [16]. In one such case in 2000, the "Cochabamba Water War" in Bolivia illuminated the negative impact of water privatization, part of the World Bank neoliberal economic packages, on access to water of the most marginalized people in the world [17]. State violence against protestors in Bolivia resulted in six people being killed [18] and consequently the reversal of the privatization measure. These anti-privatization events in Bolivia became a key component of the movement to make water a human right at the international level [19,20].

At the same time, many have suggested that while the global consensus of a human right to water and sanitation is a beneficial tool to enhance access to water and sanitation; those rights are not self-acting. Rather, the multidimensional nature of water and sanitation present numerous difficulties in translating rights "obligations" into action and reality [21–23]. Some scholars have been skeptical of the potential of human rights approaches to policy issues in general [24], while others are more sanguine about their effectiveness [25]. In terms of the impact of the human right to water, some have argued

that it has been limited to affecting policies that resulted in mere technical adjustments, rather fundamental changes that resolve the issue of access [26,27].

With the creation of the HRtWS, scholars began to examine related but divergent aspects of water and sanitation including the relationship between water and health [28], water and food; water scarcity and conflict between agriculture, industry, and human consumption; water and corruption [29]; water and the environment; indigenous peoples' rights to prior consent; water and development including mega projects such as dam construction [30]; and environmental rights and the legal rights of rivers [31]; infrastructure [32–34]. Other studies pivot in a different direction to focus on hydrology, water treatment, water management [35] or on the politics and policy of water and sanitation access [27,36]. Because water is so central to all areas of life, economy, and environment, the academic literature on water and sanitation rights has taken many different directions. The catalyst of the creation of the HRtWS to water and sanitation can be seen as a tipping point rather than the end of the process. The HRtWS requires significant political will and major policy changes including, increased planning, investment in infrastructure, and engineering to realize those rights. Global climate change has made the realization of the HRtWS more pressing and more difficult but newer international agreements including the Millennium Development Goals (MDGs) and current Sustainable Development Goals (SDGs) have helped keep attention on water and sanitation access.

Related to our current efforts to understand the scale and scope of this rapidly expanding literature, several scholars have emphasized the need to create greater synergy across the literature with a particular focus on the necessity of interdisciplinary engagement [37]. For instance, Obani and Gupta [38] highlight how legal scholars working on water and sanitation shoud more fully engage with non-legal literature and vice versa or the hydorlogists with the political scientists. Meanwhile, Feris [39] critiques the divergence in research related to the human right to sanitation and its lack of engagement with environmental considerations. We take these recommendations as the starting point for our project, which seeks to provide a clearer picture of the disparate literature on the human right to water and sanitation.

3. Data and Methods

3.1. Data Collection Process

To initiate our study, we needed to identify central repositories of academic research from which we could search for articles related to the human right to water and sanitation. To do so, we relied on two of the most prominent abstract and citation indexing databases: Scopus and the Web of Science Core Collections. These two databases are particularly valuable when compared to alternatives such as Google Scholar because of the latter's issues with replicability. In other words, scholars seeking to replicate our search process would generate an identical repository of articles when using Scopus and Web of Science for article aggregation while Google Scholar's indexing limits reproducibility. For instance, Gusenbauer and Haddaway [40] (p. 211) note that Google Scholar is "highly precise for exploratory searches . . . (for) a user interested in only a few relevant results on the first search engine results page . . . (but) precision has been found to be significantly lower than 1% for systematic searches." In short, our strategy is consistent with other systematic reviews and meta-analysis efforts [40,41].

To begin our search, we compiled a series of search strings related to the human right to water and sanitation. (The entire sample of search strings and search syntax can be found in Table S1 in our Supplementary Materials). For example, "human right to water," "constitutional right to water," and "right to sanitation" were key search strings. To ensure that our list of search strings was as complete and detailed as possible, we consulted with over a dozen researchers, practitioners, and subject-matter experts who offered additional terms to be included and/or recommended the removal of specific search strings. While impractical to include every search term, our list of search strings is quite comprehensive

and as exhaustive as possible in an effort to ensure completeness. The results of our search led to a significant catalog of published research articles.

For instance, the Web of Science search yielded a total of 15,261 records while the Scopus search returned 19,083 records. The results of this exercise were then merged into a single record of abstracts for the period 1990–2020. Since both Web of Science and Scopus provide comprehensive indexing of academic research, we filtered and removed duplicate entries. This process entailed first removing those articles with identical titles and/or abstracts and then assessing the remaining records utilizing a series of matching procedures. First, we matched records according to similarities in titles. Second, we used a term-frequency inverse-document-frequency (TF-IDF) method that provides a cosine similarity score across article abstracts. Scores between 75 and 85 were manually reviewed, resulting in a cut-off threshold score of approximately 80 where all articles above this threshold were flagged as duplicates and subsequently removed. Following these steps, we were left with a total of 13,966 unique records.

The NLP method includes a variety of pre-processing steps before applying the unsupervised Latent Dirichlet Allocation (LDA) clustering method (discussed below). In addition to the removal of stop-words (and, to, the, but, etc.), and punctuation (,\.?",etc.) from the text, it must be reduced to its base form. We chose to lemmatize text to preserve its root meaning rather than stemming it, where its rhetorical usage can be obscured. Finally, given that the human right to water and sanitation contains a wide range of papers topically, some concerned with chemical or engineering facets, we reduced the dictionary to only nouns. This was an important step for two reasons. First, it created a smaller corpus that could be more easily modeled during our topic modeling strategy. Second, and more importantly, it allowed us to hone in on clustering the particular topics as they appear, rather than the particular rhetoric and writing style that is used across a range of scientific disciplines.

Once all unique records were pre-processed, we initiated the data analysis. This included descriptive publication patterns aimed to identify trends in the number of publications each year and the specific journals in which these publications were most likely to appear. Once exploratory analyses were complete, a topic model was performed. Topic modeling, more specifically Latent Dirichlet Allocation (LDA), is a text mining strategy used to identify topics across a set of text data or corpus [42]. This is an unsupervised machine learning approach to clustering. For this process, the researcher provides the algorithm with a parameter, number of topics, and it constructs the optimal set of vectors given the number of clusters and corpus. What this looks like in practice is a set of documents representing a corpus. Given this corpus and a set number of topics (for example 5), the LDA will group words (vectors) found across documents into 5 groups. Each document contains a given distribution summing to 1 of how much a particular cluster is represented within it. That is to say, once the number of topics is set at 5, each topic (Topic 1, Topic 2, . . . Topic 5) is a set of word vectors. Given this set of words, a document has a distribution that is made up of the 5 clusters. Topic 1 might be 0.25, Topic 2 0.25, Topic 3 and Topic 4 are 0.0, and Topic 5 is 0.5. This means that Topic 5 is the most important topic for this particular document, followed equally by Topics 1 and 2.

4. Unpacking Trends in the Literature on the Human Right to Water and Sanitation

In this section, we turn our attention to the trends identified from our empirical strategy. First, we consider both the temporal trends on the human right to water and sanitation and the most prevalent outlets for the field. Figure 1 provides a graphical depiction of the rate of publications since 1990 where the left *Y*-axis provides a count of the yearly sum of articles related to the HRtWS and the right *Y*-axis reports the cumulative total. Perhaps unsurprisingly, there has been a dramatic increase in the number of publications dealing with topics on the HRtWS since 1990 with noticeable upticks in several places. What is most interesting, from our perspective, is the sharp increase over the past decade. For instance, in 2010, the year the human right to water and sanitation was officially estab-

lished by the United Nations General Assembly, the total number of annual publications approached 500. By 2020, that number more than tripled with nearly 1750 publications. While multiple factors contribute to an uptick in publications (i.e., the establishment of more journals) it is interesting to note the substantial increase in articles since these rights were officially codified.

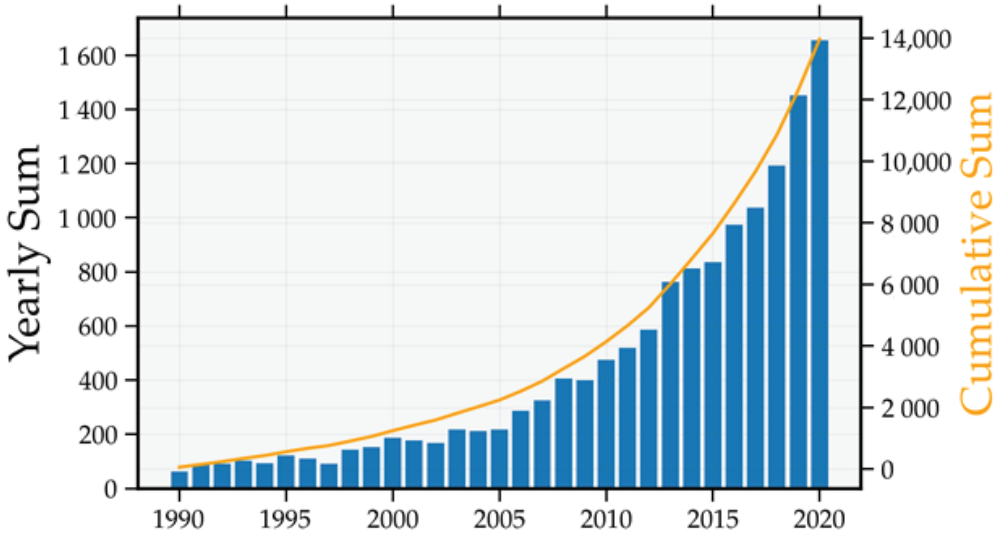

Figure 1. Annual number of papers published on the human right to water and sanitation. * Figures exclude records that lacked an abstract.

In addition to the general growth in the number of publications, it is worth commenting on the cumulative totals across each decade. Between 1990 and 1999 a total of 1059 articles were published related to the human right to water and/or sanitation, accounting for approximately 7.6% of all articles published during the temporal scope of our exploration. The number of articles more than doubled in the second decade (2000–2009), with 2605 publications or approximately 18.6% of all publications over the past thirty years. The final decade (2010–2020) saw the most significant growth, with 10,302 articles published, equating to nearly 74% of the overall corpus. We think it is important to note that our final decade (2010–2020) has a larger temporal scope (by one year) compared to the two previous decades. Regardless of where we ultimately delineate our cut-points (i.e., 1990–2000; 2001–2010; 2011–2020), the temporal trends are generally consistent.

5. Main Journals

While Figure 1 is instructive of the dramatic increase in the quantity of research, Figure 2 illustrates the outlets which publish most frequently on topics related to the human right to water and sanitation. It is important to note that the rankings here correspond to the frequency in which a journal publishes research that was identified using our list of search strings as discussed in Section 3.1. This exercise provides a first look at the types of outlets producing research on or related to the human right to water and sanitation and there are several noteworthy trends. First, the journal *Water* earns the unique distinction as the outlet that has published the most research related to the HRtWS. This journal was established in 2009 but has emerged as a front-runner in the production of scholarship on topics related to the HRtWS. Between 2009 and 2020, *Water* published over 350 articles on topics connected to the human right to water and sanitation, nearly double the number of articles published in the journal *Water Policy* which sits in the number two spot. In second place is *Water Policy* which was first established in 1998 and was absorbed by the

International Water Association (IWA) in 2003. IWA houses several journals on this list in addition to *Water Policy* including, *Water Science and Technology*, the *Journal of Water, Sanitation & Hygiene for Development*, and *Water Research*, which it supports in association with Elsevier.

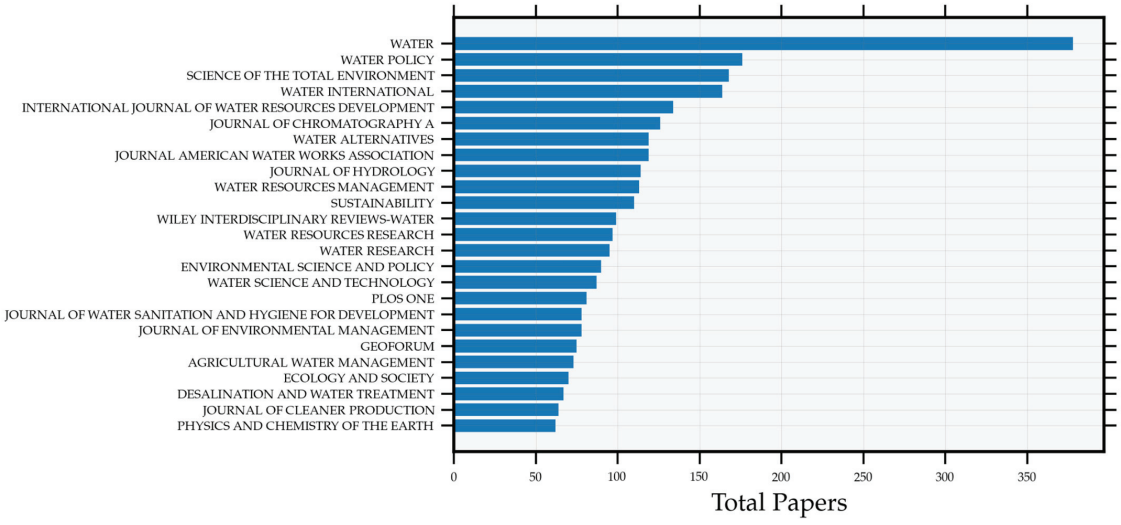

Figure 2. Number of papers published in the top 25 journals, 1990–2020. * It is worth pointing out that while this figure provides the list of the top 25 journals, the number of journals publishing research on/related to the HRtWS is quite large. For instance, in 2020 alone, over 770 different journals published at least one paper on topics related to the HRtWS.

Second, 11 journals have published at least 100 papers related to topics on the HRtWS. Such outlets include *Sustainability*, *International Journal of Water Resource Development*, and *Water Alternatives—An Interdisciplinary Journal on Water Politics and Development*. Third, an important feature of the list of the top 25 outlets is both the multidisciplinary nature of, and interdisciplinary approaches within, these journals. While scholars consistently refer to the study of the human right to water and sanitation as an increasingly multidisciplinary field, the list of outlets producing research on these topics provides a graphical representation of the truly multidisciplinary nature of the field and a cursory look at articles reveals the interdisciplinary approaches to addressing questions on the HRtWS. For instance, at first glance, the *Journal of Hydrology* may not appear as a relevant outlet for research related to the HRtWS, but recent publications include papers on water security in changing environments [43], drought reconstruction and water scarcity in India [44], governing water services in Europe [45], and water management issues in megacities [46], to name a few. Moreover, *Wiley Interdisciplinary Reviews-Water* illustrates scholarly efforts to pursue interdisciplinary approaches in the study of HRtWS, merging, for instance, the fields of sociology and water science [47].

6. Topic Modeling

As the trends above suggest, research on the human right to water and sanitation has grown dramatically over the past decade. Yet, simply identifying trends in publication counts and outlets only tells a partial story in our effort to synthesize broader trends in the literature. In this section, we examine the evolution of topics addressed in the literature over the past thirty years.

In utilizing this topic modeling strategy, it was incumbent on the authors to assign topic labels based upon the topic ranking and relevance scores. As noted, each topic is comprised as a series of most relevant terms where the total of each series of terms equals 1. For example, Topic 16 includes terms such as water, security, resource, supply, etc., which led us to label it "water security and supply." To arrive at such a conclusion for our most important topics (i.e., identified in Figure 3), we adopted an iterative process where each author assessed topics independently, arriving at an independently designated topic label. Through consultation, the authors then determined an agreed-upon topic label that most closely reflected the labels each author generated independently. For instance, Topic 19 included terms such as climate, water, climate change, rainfall, and impact. The authors independently arrived at topics such as climate and water, climate change and water, and water and climatic factors. Given the overlap in topic designations, the authors then agreed upon "climatic factors and water" as the topic label for Topic 19. From our perspective, it is important to note that labeling topics necessitates some degree of subjectivity on the part of the labelers. As we discuss, our labeling strategy was consultative but a different group of researchers may arrive at different topic labels based on the terms which appear under each topic. As a result, and for transparency, we have included the full list of 31 topics including the top 15 terms under each topic in Table S2 in our Supplementary Materials.

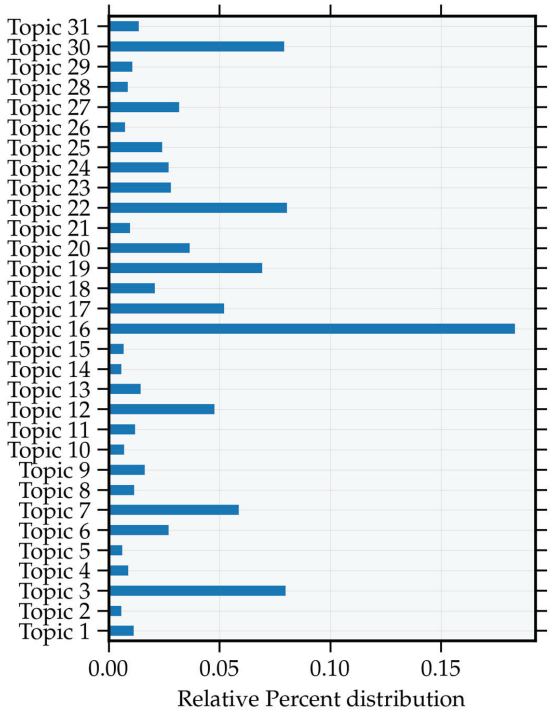

Figure 3. Distribution of topics across publications, 1990–2020.

Figure 3 plots the relative distribution of topics across all publications from 1990 to 2020. A few major themes emerge. First, Topic 16 vividly stands out as the most frequently published across all journals. Topic 16 broadly focuses on issues related to water security and supply, key aspects of the human right to water and sanitation. Topic 3—Water Research, Governance, and Development, Topic 19—Climatic Factors and Water, Topic 22—Water Policy and Management, and Topic 30—Water Quality and Treatment round out the top five topics identified via our topic modeling strategy. Other topics that appear

to be quite salient in the research on the human right to water and sanitation include Topic 7—Science and Water, Topic 12—Water Governance and Resilience, Topic 17—Water and Health, and Topic 20—Water and Agriculture.

In Figure 4, we plot the top five topics temporally, illustrating the frequency in which each topic appears in publications over the period 1990–2020. The *X*-axis shows the temporal scope of our study (1990–2020), while the *Y*-axis shows the average topic importance at the yearly level essentially depicting the relative importance of the cluster of words that account for each designated topic across all publications in each respective year. Moving from left to right across the graph, we can see how the average importance of each topic changes over time.

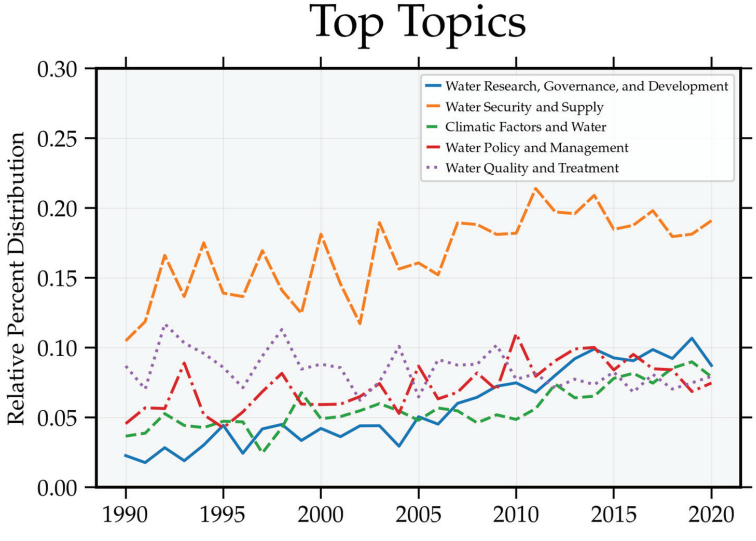

Figure 4. Top 5 topics—trends over time, 1990–2020.

With the exception of Topic 30—Water Quality and Treatment, which has remained relatively constant over time, there appears to be a general increase in average importance across each of the main topics since 1990. While part of these upward trends may be explained by general increases in the number of outlets and/or publication processes that allow for more frequent publishing, the patterns also suggest that scholars may be devoting increased attention to certain topics. For instance, in 1990, Topic 3—Water Research, Governance, and Development was the least important topic of the 5 depicted in Figure 4. By 2020, water research, governance, and development sat only behind Topic 16—Water Security and Supply as the most frequently published topic. The most significant spike appears to have taken place after 2010 which aligns with the UN's formal recognition of the human right to water and sanitation. For Topic 16—Water Security and Supply, the sharp dip in the early 2000s appears to have rebounded considerably post-2002, perhaps the result of increased attention on the HRtWS ushered in by General Comment 15. Meanwhile, Topic 19—Climatic Factors and Water spiked in the late 1990s after a sharp decline in approximately 1996 and has seen steady growth since 2000. While we are cautious to discuss causality as our empirical strategy can only offer descriptive insights, there are some interesting parallels to consider. For instance, the 2002 initial quasi-recognition of right to water via General Comment 15, the 2010 codification of the HRtWS, and the expiration of the Millennium Development Goals (MDGs) in 2015 (for details on the MDGs, see https://www.un.org/millenniumgoals/bkgd.shtml) (accessed on 17 October 2021) and establishment of the Sustainable Development Goals (SDGs) might help us understand the growth of research on climatic factors and water (for more information on the SDGs,

see https://www.un.org/sustainabledevelopment/) (accessed on 17 October 2021). SDG 6 and SDG 13 for example, center on access to clean water and sanitation and climate action, respectively. There has also been increasing awareness of environmental issues compounding water access issues (climate change; urbanization, etc.,) as well as research on judicial decisions on the legal rights of rivers [48].

One final interesting observation is a slight decline in research on Topic 22—Water Policy and Management since the period 2015–2016. Part of this decline may potentially be explained by a shift to research focusing on climatic factors and water as well as the increasing attention given to Topic 3—Water Research, Governance, and Development. In this latter case, the divergent paths of Topic 22—Water Policy and Management and Topic 3—Water Research, Governance, and Development since 2015 are interesting as more scholarly attention appears to have focused on issues of water governance and development in place of management and policy issues. From our perspective, such topics largely intersect and this appears to be reflected in the near convergence between these topics in 2020.

Main Topics across Journals

Shifting away from general topical trends across all journals, Figure 5 plots the salience of topics across the top four most active journals that have published research related to the human right to water and sanitation over the past thirty years. Beginning with the top left quadrant, *Water International* publishes frequently across Topics 16—Water Security and Supply, 22—Climatic Factors and Water, and 3—Water Research and Development. Recent research across these topics include projects on desalination to address issues of water (in)security in Jordan [49], the use of computational text and data mining tools to understand water disputes in Chile [6], and rainwater harvesting as a means for household security in Uganda [50].

Meanwhile, *Water Policy* (top right quadrant) has more heavily published articles related to Topic 16—Water Security and Supply such as papers on water privatization and consumption in urban centers of Ghana [51], regional water security issues in China [52], and transboundary water conflicts in river basins [53]. However, it also frequently publishes papers related to Topic 22—Climatic Factors and Water including, for example, research on drought management and water governance in South Africa [54], climate readiness for the provision of water services in Sydney [55], and climate change implications for Sao Paulo [56].

Prevalent topics in the journal *Science of the Total Environment* (bottom left quadrant) include articles related to Topic 16—Water Security and Supply, Topic 19—Climatic Factors and Water, and Topic 30—Water Policy and Management. Recent examples that intersect some of these topics include water-related challenges for governance and sustainable development in Peru [57], issues of urbanization and water security [58], regional threats to human water security in South Korea [59], and freshwater vulnerability and climate change across Europe [60].

Lastly, the journal *Water* (bottom left quadrant) publishes most frequently on Topics 16—Water Security and Supply and 3—Water Research, Governance, and Development. Recent publications include topics on water scarcity and inefficient water usage in the United States [61], the effects of constitutionalizing the human right to water [27], water governance and policy in India [62], water security challenges in Togo [63]. Across each of the top four journals, the multidisciplinary nature of topics is quite apparent which speaks to the importance of engagement with a wide selection of academic outlets.

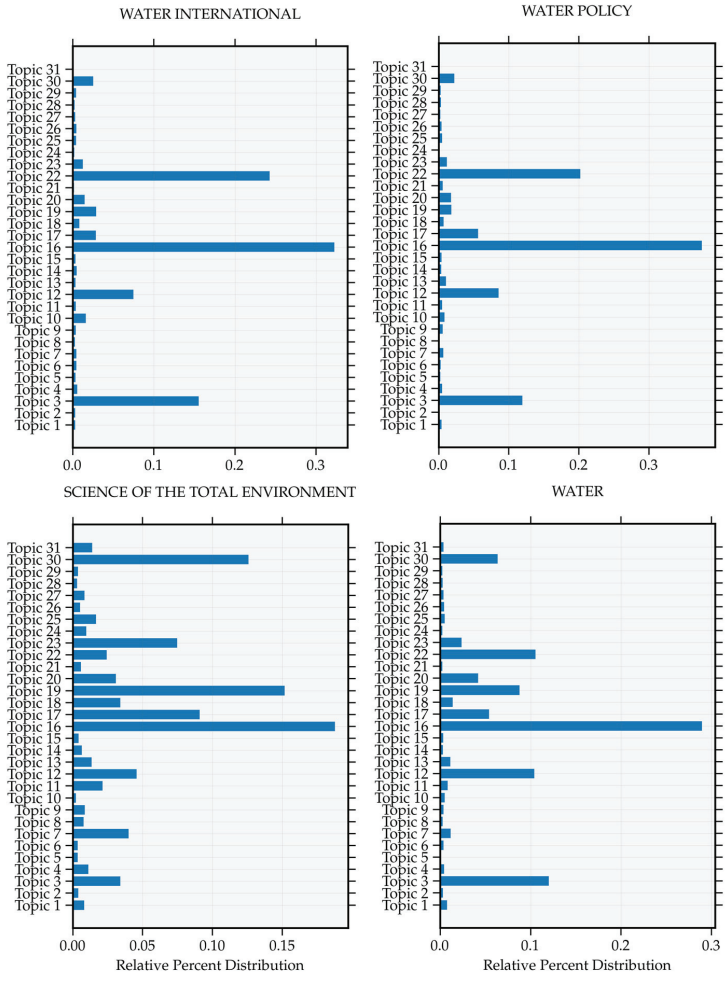

Figure 5. Topic salience across top four journals, 1990–2020.

7. Discussion and Implications

Leveraging advances in natural language process and machine learning, this paper applied a systematic approach to explore the evolution and topical trends in the academic literature on the human rights to water and sanitation over the past three decades. To the best of our knowledge, this effort represents one of the first and most extensive attempts to map and synthesize this rapidly expanding literature.

While our study is narrowly focused on the human right to water and sanitation, it is illustrative of the power such methodological strategies can have for the broader field of human rights. Our approach to examining the evolution of topics in the literature on the human rights to water and sanitation provides scholars and practitioners alike with a valuable tool in assessing trends in academic scholarship and specifically highlights emerging areas of research. There are at least four important takeaways from our study. First, our topic modeling approach has revealed how the academic literature on the HRtWS has evolved over the last three decades [64]. While the exponential growth in the number of peer-reviewed publications is of course an important finding, the topic modeling illustrates where this discourse has largely focused. For instance, while Topic 16—Water Security and

Supply holds the top spot, other topics such as Topic 19—Climatic Factors and Water have seen a steady influx of academic publications since 2010. This is perhaps unsurprising given the increasing importance of climate change as a threat to water access and security and it is a reasonable expectation that such research will continue to increase in frequency. This raises an additional element for consideration: within our topical designations, there are likely several intersectional topics worth further consideration. For example, there may be close linkages to climatic factors and water security/supply that our topic modeling approach could not fully account for. Still, our study offers a strong first attempt to unpack the complexities of the research on the HRtWS.

Secondly, such trends also reveal areas that may need more attention. For instance, Topic 10—Water and Conflict, while salient, appears to be investigated and published on less frequently than many other topics. From our perspective, and given the frequency and attention to which scholars have devoted to Topic 16—Water Security and Supply, Topic 19—Climatic Factors, and Topic 3—Water Research, Governance, and Development, there is potential for much more research to be done on water and conflict. Similarly, while Topic 17—Water and Health is a salient topic in the literature, one might expect more research to emerge given both the centrality of safe water and sanitation to beneficial health outcomes [65] and the increased attention on global health during the ongoing COVID-19 pandemic.

Third, many topics appear to focus more directly on the human right to water, issues of water security, and challenges of water management policy, and governance. This is not to say that sanitation is unimportant, but it does appear that research and publications on the human right to sanitation have been relegated to a somewhat secondary area in terms of topical importance across assessed publications. Schiel et al. [27], for instance, identify this shortcoming and some of the underlying difficulties in researching topics related to sanitation. For our study, this is most directly reflected in the fact that the word sanitation only appears once in the list of top words in our topic modeling approach. Specifically, it falls under Topic 17—Water and Health. This is not surprising given the clear intersections between sanitation and health, but it is perplexing why topics that specifically focus on sanitation are not more apparent across our empirical assessment. Still, it is worth noting that scholars have devoted significant attention to sanitation and indeed, several indices have emerged that emphasize the importance of considering issues related to sustainability for the integrity of sanitation systems [66,67]. We believe this line of inquire is important given the intersection between sustainability and the HRtWS. Our investigation might be fruitful for helping scholars think through topics that may be important in the construction of indices more oriented to human rights.

Fourth, and as we specified several times, the list of top 25 journals in terms of frequency of production of research related to the HRtWS is interesting as it reveals the multidisciplinary nature of the human right to water and sanitation as well as the interdisciplinary approaches used by scholars investigating questions related to these rights. This is likely unsurprising to those who work in this field, but does suggest a need for researchers to be familiar with a wide range of scholarship outside of their own discipline and to consider opportunities to develop multidisciplinary skills or collaborate on multidisciplinary teams.

While some bias exists when relying on a corpus of peer-reviewed research, our efforts provide an important foundation for synthesizing the state of academic research on the human right to water and sanitation. Still, a few limitations are worth mentioning here. First, as we note, topic modeling is a useful strategy for unpacking general trends via NLP but requires users to label respective topical categories. In other words, there is not an objective process for doing so. While we sought to label topics based on consultative procedure, different researchers may arrive at different topic labels. We do not see this as much of an issue for understanding trends in the literature, but rather suggest that those interested in our study heed this point and consider the ensemble of words within each topic. Second, our empirical strategy unfortunately was unable to account for NGO,

UN, and other non-peer-reviewed publications that may address issues, progress, and/or challenges related to the human right to water and sanitation. While our study is clearly centered on unpacking trends in academic work it is worth noting that work on human rights—and specifically the rights to water and sanitation—has been widely written about in these non-peer-reviewed outlets. While there may be similarities across academic and non-academic writing, future research might consider ways to expand the scope of our efforts though it is important to consider that a central difficulty in conducting such a study is the ability to identify a clear corpus from which to draw articles, reports, etc.

While our empirical strategy is telling and provides a useful starting point via the uncovering of patterns across the corpus of peer-reviewed research from 1990 to 2020, our topic modeling approach is unable to engage with the theoretical substance of the research. In other words, we are able to offer a synthesized look at the literature over the past thirty years, but researchers will need to take the next steps to more fully understand the practical and theoretical implications of identified patterns. Overall, we believe this project provides an important baseline for unpacking three decades worth of peer-reviewed research on the human right to water and sanitation. The growth of the field in terms of sheer quantity is encouraging as it suggests a growing interest and willingness of researchers to pursue projects on these newly established rights as well as increasing interest from academic journals. While such growth is not entirely driven by the UN's adoption of these rights in 2010 (i.e., the number of journals has increased), there is reason to suspect that the establishment of these rights has been at least somewhat influential. Overall, we believe this study serves as a useful foundation in efforts to learn where academic research on the HRtWS has concentrated and the direction of its future trajectory.

Supplementary Materials: The following are available online at https://www.mdpi.com/article/10.3390/w13243501/s1, Table S1: Search strings for Web of Science and Scopus, Table S2: Top 15 terms by topic, 1990–2020.

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Comparing Experiences of Constitutional Reforms to Enshrine the Right to Water in Brazil, Colombia, and Peru: Opportunities and Limitations

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Abstract: In this paper we compare recent efforts towards the constitutionalization of the right to water in Brazil, Colombia, and Peru to understand the opportunities and limitations related to the attempts to enhance access to piped water to the highest normative level. Peru passed a constitutional amendment in 2017 while Brazil and Colombia have seen much right-to-water activism but have not succeeded in passing such reforms. We explore the role of the existing domestic legal frameworks on drinkable water provision and water management towards the approval of constitutional amendments. We find that all three countries have specialized laws, water governing institutions, and constitutional jurisprudence connecting access to water with rights, but the legal opportunity structures to enforce socio-economic rights vary; they are stronger in Colombia and Brazil, and weaker in Peru. We argue that legal opportunity structures build legal environments that influence constitutional reform success. Legal opportunity structures act as incentives both for social movements to push for reforms and for actors with legislative power to accept or reject them. Our findings also show that in some contexts political cost is a key element of constitutional reforms that enshrine the right to water; therefore, this is an element that should be considered when analyzing these processes.

Keywords: right to water; constitutional reform; legal opportunity structure; water legal framework; socioeconomic rights; Brazil; Peru; Colombia; social movements; political cost

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1. Introduction

This paper provides a comparative analysis of constitutional reform attempts in Brazil, Colombia, and Peru for the inclusion of the right to water. There is extensive literature that focuses on constitutional reforms as a mechanism to improve access to water and its impacts, as well as on each country's efforts to protect water rights, but the comparative literature is still underdeveloped. We provide evidence that legal opportunity structures influence constitutional reform success and explain how this occurs in the three case studies. This study is a contribution to scholars and policy makers interested in understanding the regional and domestic dynamics that limit the full implementation of the right to water for all, as urged by the United Nations since 2002 and reinforced in 2010.

Recent efforts towards the constitutionalization of the right to water in Brazil, Colombia, and Peru have led to different results in these countries. While Peru has been successful in enshrining the right to water in the constitution, Brazil and Colombia have seen plenty of right-to-water activism through courts and social protest but have not succeeded in having these reforms approved. In this paper we analyze these constitutional reform processes and explore the role of the existing domestic legal frameworks on drinkable water provision

and water management towards the approval of such reforms. While recognizing the right to water has different understandings and definitions, this paper focuses on people's access to pipeline water, which has been at the core of the constitutional debates in these countries and the region. We argue that existing legal opportunity structures build legal environments where constitutional reforms are more or less likely to succeed. These legal opportunity structures in turn act as incentives both for social movements to push for reform and for the ones in power (particularly Congresses) to accept or reject it. A key element that has influenced the approval of constitutional reform initiatives by Congresses in these countries is the political cost involved in the decision to constitutionalize the right to water.

In the Latin American region, analyses of the constitutionalization of the right to water in Bolivia and Ecuador have shown the weakness of this right to transform the prevalent neoliberal models of water governance [1–3]. However, each country has its own legal institutions and mechanisms, and what is not transformative in one context might promote important changes in others. There have been attempts to enshrine a right to water in the constitution of several countries, but not all of them have done so. In some countries, the actors involved in these attempts have not been able to mobilize enough political support to pass constitutional reforms. In others, constitutional reforms have faced strong opposition, which could be indicative of a resistance to the potentially transformative effects of water rights. Furthermore, we argue that constitutional reforms in Brazil, Colombia, and Peru have different meanings and roles that are rooted in the existing legal and institutional frameworks for water protection.

The selection of our three countries was based on the following criteria. Firstly, Brazil, Colombia, and Peru are neighboring countries home to more than 80% of the Amazon rainforest and are among the world's top ten countries in terms of their volume of renewable freshwater resources [4]. Secondly, they face similar challenges in the protection of water resources, such as large-scale resource extraction that is considered central to their economic development strategies. Extractive industries not only challenge the sustainability of water from a human consumption perspective, but they also challenge the livelihood of communities whose culture and identities depend on these water sources. Several regions in these countries are particularly vulnerable to water scarcity, which is often caused or exacerbated by climate change [5–10]. Thirdly, the selected countries are characterized by high inequality, a reason why the water rights of vulnerable groups, such as rural populations, are under threat. It is worth noting that the indigenous populations in these countries are mainly located in rural areas; thus, they are affected by an intersection of marginalization factors [11–14].

Despite these similarities, the outcomes of constitutional reform processes greatly differ from one country to another as do the mechanisms that have been used to advance these reforms. While Peru passed a constitutional reform establishing a freestanding constitutional right to water in 2017, similar efforts in Brazil and Colombia have proven unsuccessful. While in Peru the constitutional reform was led by political parties in Congress, in Brazil and Colombia social movements have also promoted initiatives towards enshrining the right to water but have run into governmental and legislative hurdles that have not been overcome. These different outcomes are puzzling when considering that Peru—relative to the other two countries—has the weakest constitutional protection of economic, social, and cultural rights (ESCR) and that constitutional reforms are much less frequent there.

The 1988 Brazilian constitution and the 1991 Colombian constitution are often referred to as transformative due to their egalitarian aspirations and for the fact that they sought to promote the constitutional protection of social rights [15–19]. At the same time, the constitutional regimes in Brazil (1988), Colombia (1991), and Peru (1993) are part of the phenomenon known as the Latin American neo-constitutional movement which took place in parallel to the expansion of neoliberal reforms [15]. They are not part of the latest wave of Bolivarian socialist regimes which aimed to deeply transform society and regulate the economy [19].

Valuable work has already been completed on an individual country level in exploring the jurisprudence on the right to water, as well as the specific processes surrounding its constitutionalization [2,20–27]. Here we offer a comparative perspective and focus

particularly on capturing obstacles as well as elements that have fostered constitutional reform processes in the three cases. This paper seeks to contribute to the existing gap in comparative Latin American studies regarding the recognition and protection of the right to water.

We identified relevant norms per country based on whether they regulated access to pipeline water. We included laws, executive decrees, and administrative norms to analyze them based on how they regulated the access to water and stakeholder interests. We also focused on whether these rules created an obligation for the government to protect access to water for the population. Additionally, we build on the assumption that although courts have had different roles in advancing rights protection per country, they can act as catalysts when protecting constitutional and social rights. Moreover, in the case of Brazil and Colombia, the courts have had a salient role in the implementation of the 1988 and 1991 constitutions, respectively [28]. It is worth noting that two of the three countries under analysis are organized as unitary political systems (Perú and Colombia), while Brazil is organized in a federalist political system. For the purpose of this study, we focus on the Brazilian constitution and legislation at the federal level. After identifying relevant regulations per country, we describe key constitutional reform efforts in the access to pipeline water.

Here we focus on domestic legislation that passed starting in the 1990s when neoliberal reforms permeated Latin American countries, particularly in public service provision. Although domestic legislation in the three countries has faced multiple reforms, the foundation for the access to pipeline water was planted in this decade and several of these norms are still in place. Our window of analysis for constitutional reforms starts in 2010 and is based on two criteria: First, we focused on the constitutional reform efforts that gained visibility at the national level in each country, and that allowed us to explore the dynamics between institutional decision-makers.

We acknowledge that there have been important efforts towards the protection of access to pipeline water at the local level, but we have not included them in this study because we are focusing on the interaction between domestic legislation at the national level. Second, we analyze constitutional reform attempts starting in 2010, acknowledging the relevance of the UN General Assembly adopted Resolution 64/292 that recognized access to clean water and sanitation as an independent human right. Finally, our window of analysis ends in 2019. It is our assumption that the world suffered profound changes because of the COVID-19 pandemic with long-lasting effects that are yet to be explored.

The paper is structured as follows: In the first section, we describe the legal status of the right to water in Latin America and provide background on the efforts towards constitutional reforms on the continent. Then we describe the existing legal framework per country in the access to pipeline water, and we identify the relevant institutional actors per country. In the third section, we comparatively analyze the three countries' attempts at constitutional reform and how these reforms interact with existing legal frameworks in each country. Finally, we present our conclusions.

2. The Legal Status of the Right to Water in Latin America

When the International Covenant on Economic, Social, and Cultural Rights was adopted in 1966, access to water was not explicitly recognized as a right. In recent decades, however, increased attention has been paid to this right and numerous steps have been taken toward its recognition at the national and international levels.

In 2004, Uruguay was the first country in Latin America to enshrine the right to water in its Constitution, which it did by referendum. Ecuador and Bolivia followed suit in 2008 and 2009, respectively. In all three countries, the constitutional protection of the right to water was introduced largely in response to the wave of privatization of the drinking water supply [2,29]. Behind these reforms lay a claim for equal access to water for all, including those who could not pay the costly tariffs established by private companies. The right thus served as a strategy for resisting the commodification of water and the barriers of many to

access it. However, only the Uruguayan Constitution forbids the participation of private companies in the distribution and provision of water and sanitation.

The enshrinement of rights into constitutions does not necessarily follow a top-down process whereby international law influences the behavior of nation-states. While constitutional processes must be understood as embedded in broader transnational contexts [30], different countries simultaneously participate in creating international law [31]. Thus, the constitutionalization of the right to water in Uruguay, Ecuador, and Bolivia in the 2000s conversely had effects on the international level. Disputes over the recognition of the right to water in Latin America have been key in shaping its international recognition [1,3].

The steps taken in the international arena to establish a right to water have been driven by a broad coalition of water rights advocates, including civil society representatives and parties seeking to protect private interests around the privatization of water [1,3]. In 2002, the United Nations (UN) Committee on Economic, Social, and Cultural Rights issued General Comment 15, which interpreted the International Covenant on Economic, Social, and Cultural Rights as encompassing a right to water. A comment notes in the Introduction (point 2) that this right "entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses." [32].

In 2010, the UN General Assembly adopted Resolution 64/292 recognizing access to clean water and sanitation as an independent human right that is essential for the full enjoyment of life and all human rights. Later that year, the UN Human Rights Council adopted Resolution 15/9, which stated that the right to water and sanitation derives from the right to an adequate standard of living [33]. The normative content for the regulation of the right to water is composed of five criteria also used to regulate other ESCR (as the right to health), i.e., availability, accessibility, quality and safety, affordability, and acceptability [34].

However, as mentioned earlier, the concept of the right to water is still under construction and there is not a consensual interpretation [34]. It is within this context that in 2015, the UN further included access to clean water and improved sanitation among the goals of the 2030 Agenda for Sustainable Development.

Although Brazil, Colombia, and Peru have incorporated international human rights treaties into their constitutions and have ratified the International Covenant on Economic, Social, and Cultural Rights, it is important to keep in mind that this covenant does not explicitly protect the right to water. While General Comment 15 refers to the right to water and the legally binding effects of treaties are broadly accepted, the legal status of general comments, UN resolutions, and development goals are under dispute [35]. However, it is also widely accepted that UN General Assembly resolutions adopted by unanimity are not mere recommendations and can be proof of legally binding international law—be it treaty-based or customary [36]. Furthermore, some international law norms are not self-executing, which means that even in cases where treaties have been ratified by a state, an additional incorporation of the treaty rights into domestic constitutions (i.e., a duplication of the rights) increases the probability of their effective enforcement [30].

It is relevant to note that when the aforementioned UN General Assembly resolutions were adopted in 2010, neither Brazil, Colombia, nor Peru had a self-standing right to water in their constitutions. In Colombia, social movements have mobilized around the inclusion of the right to water in the constitution at least since 2007 with no success until now. In 2014, Brazil was recommended to undertake constitutional reform to include the right to water explicitly [37]. Since the changes in international law took place, only Peru among the selected countries has done so.

3. Materials and Methods

To explore the dynamics lying behind attempts to introduce constitutional reforms enshrining the right to water we focused on three cases: Brazil, Colombia, and Peru. We analyzed the legal and regulatory framework in each country by identifying the relevant norms that have been in place and that have framed social dynamics in water rights. Our assumption is that these regulations have contributed to the legal environments

where the constitutional reform movements have been drawing on (either successfully or unsuccessfully). We identified relevant regulations per country based on whether they regulated access to pipeline water. We conducted a content analysis of laws, executive decrees, and administrative regulations focusing on the type of protection they provided to the right to water. In particular, we focused on whether these rules created an obligation for the government to protect water rights to the population. We then related these mechanisms for protection to the content and goals of constitutional reforms per country.

Additionally, we analyzed the jurisprudence of constitutional courts on the access to pipeline water in each country by focusing on how the courts have interpreted the legal framework; we built on the assumption that the role of courts can foster a positive (or negative) environment towards constitutional reforms to protect the right to water. Overall, we analyzed each country's constitution, 12 laws, 5 regulatory rules, 21 constitutional bills, 2 constitutional court rulings, and made a broad analysis of constitutional case law trends based on secondary literature. In Table 1, we summarize the regulations we analyzed.

Table 1. Summary of the materials used.

	Brazil	**Colombia**	**Peru**	**Total**
Constitutional court rulings	Analysis of trends	Analysis of trends	2	2
Constitutional bills	4 (2010–2018)	5 (2010 onwards)	12 (2011–2016)	21
Laws	6	2	4	12
Regulatory rules	0	2	3	5

Source: Prepared by the authors.

4. Existing National Legal and Regulatory Frameworks

4.1. Constitutions

When the UN resolutions on the human right to water were approved in 2010, Brazil and Colombia already recognized an extensive list of individual as well as economic, social, and cultural rights that could be considered to encompass the right to water. One key feature that distinguishes Brazil and Colombia from Peru is that while the first two countries' constitutions include justiciable social rights, Peru's constitution offers only weak protection for them.

The Peruvian Constitution, in contrast to the Brazilian and the Colombian constitutions, differentiates between fundamental rights—which include the right to life, equality before the law, identity, freedom of conscience and religion, freedom of association and assembly, and free movement, among others—and ESCR, including, inter alia, the right to health, social security, education, and employment. This differentiation provides a strong symbolic message on the status of ESCR in the constitutional design. The Colombian constitution incorporated the same design, and the jurisprudence of its Constitutional Court has linked the satisfaction of certain socio-economic rights to the guarantee of fundamental individual rights (i.e., the social right to health in connection with the fundamental right to life), elevating the first-mentioned category to what is essentially fundamental right status.

The constitutional recognition of ESCR as aspirational rights is a core factor of democratic and social reform in Latin America. As Brinks and Levitsky [38] conclude, aspirational rights can be activated so that gains may be easier to achieve in their presence than in their absence. In the case of Latin America, courts have, by judicial interpretation, activated constitutional aspirational rights.

4.2. Laws

By 2010, all three countries had a legal framework for access to pipeline water that responded to the human rights approach embedded in the 2010 UN resolutions. Notably, in the three countries, the models of water governance are in tune with the neoliberal water reforms adopted across Latin America during much of the 1990s, often preceded by Structural Adjustment Policies required by The World Bank, the International Monetary Fund, and the Inter-American Development Bank.

The implementation of neoliberal water reforms across the region—or the attempts to implement them—in the 1990s were at different levels: resource management, organizational structure, and decision making. They were characterized for promoting a combination of privatization, commercialization, marketization, and re-scaled governance. Reforms sought to put the management of water resources under technical bodies with limited space for political maneuver and community participation [2,39–41].

In each of these countries, water has been recognized as a public good that is exploitable by individuals and private entities through state permits (see Table 2). In 1993, Colombia established human consumption as the main priority for water use (Law 99/1993, art. 1), the Peruvian Law of Water Resources (Law 29338/2009) also prioritizes human consumption over other uses, while in Brazil the 1997 federal law that institutes the national water resources policy states that in situations of scarcity, priority is to be given to human consumption and livestock needs (Law 9.433/1997, art. 1.III).

Table 2. Pre-existing legal framework for the right to water in the selected countries (2010).

Some Criterion and Human Rights Principles	Country		
	Brazil	**Colombia**	**Peru**
Availability	Law 9.433/1997, art. 1, III, art. 2, I; Law 11.445/2007, art. 2, I	Constitution, art. 366 Regime of Public Utilities: Law 142/1994, art. 5	Law of Water Resources: Law 29338/2009 General Sanitation Law: Law 26338/1994
Quality	Constitution, art. 200, VI; Law 9.433/1997, art. 2, I; art. 3, I, art. 7, III and IV, art. 9, I, art. 12, V, art. 22, § 2°; Law 11.445/2007, art. 2, XI, art. 11, § 2°, II, art. 12, § 1°, I, art. 23, I and III, art. 30, II and IV, art. 38, § 2°, art. 43, caput, Law 8.080/1990, art. 6, VIII (inspection)	Constitution, art. 367 Regime of Public Utilities: Law 142/1994, art. 68 Decree 1575/2007 and Resolution 2115/2007 (creating the System for protection and Control of Water Quality)	Law of Water Resources: Law 29338/2009 Law creating the National Superintendence of Sanitation Services: Law 25965/1992
Accessibility and affordability	Law 9.433/1997, art. 11 Law 11.445/2007, art. 2, I and II, art. 3, III and VII, art. 11, § 2°, IV, c, art. 23, IX, art. 29, § 2°, art. 30, III and VI, art. 31, art. 48, I	Constitution, art. 368 Regime of Public Utilities: Law 142/1994, arts. 2, 97, and 99	Law of Water Resources: Law 29338/2009 Law creating the National Superintendence of Sanitation Services: Law 25965/1992
Participation	River basin committees (Law 9.433/1997, arts. 33, III, 37–40)	Water boards: Constitution, art. 369 Regime of Public Utilities: Law 142/1994	Law of Water Resources: Law 29338/2009 Organic Law of Municipalities: Law 27972/2003
Operators of water supply	Municipalities—directly or by concession or permission (Constitution, art. 30, V)	Private, public, or mixed regimes	Private, public, or mixed regimes (Law 25965/1992)
Ownership of water	Public good—federal union or member-states (Constitution, arts. 20, III and 26, I; Law 9.433/1997, art. 1, I)	The Nation	The nation (Constitution art. 66)
Priorities in water allocation	In case of scarcity, human consumption and the needs of livestock must be prioritized (Law 9.433/1997, art. 1. III)	Human consumption is prioritized (Law 99/93, art. 1 num. 5)	Satisfying human needs is prioritized (Law of Water Resources: Law 29338/2009)

Source: Prepared by the authors.

4.3. Institutions and Service Providers

Brazil, Colombia, and Peru have all created national-level bodies tasked with overseeing the quality of water sources and granting water exploitation permits. While in Brazil this body is autonomous and was until 2019 administratively placed under the Ministry of Environment (Law 9.984/2000), water-related functions in Colombia are distributed among various ministries, with the Ministry of Environment as the most important (Law 99/1993).

Meanwhile, in Peru, the water agency is part of the Ministry of Agriculture, which reveals a different institutional approach and tradition regarding water management. In Peru, the management of water sources is still heavily linked to agricultural activities and is almost independent from access to pipeline water, which is linked to state infrastructure.

More recently the Brazilian agency was administratively placed under the Ministry of Regional Development (Law 13.844, 2019).

In Table 2, we summarize each country's legal framework as of 2010, the year of the UN resolutions, taking into account the human rights criteria and the principles of these resolutions.

A key aspect of the regulatory framework is whether the privatization of pipeline water supply is allowed. Colombia and Peru follow legal models of privatization and have created bodies charged with regulating the supply of water by private companies. These bodies are designed to hold private companies accountable and to guarantee the quality of their services. In Colombia, Law 142 created in 1994 assigned key roles to both the state and the private sector and allowed the creation of public–private partnerships for water provision and management. Peru has a similar law, passed in 1992, that allowed private companies to participate in water provision and management. In Brazil privatization is also possible but has been limited by fragmentation.

Brazil, unlike Colombia and Peru, is a federal republic with three levels of government: local (municipalities), member-state, and federal. The municipalities are responsible for organizing and providing drinking water, whether directly, by concession, or by permission. Although Brazil allows the participation of private actors for water provision, it did not have until 2020 a national regulatory body responsible for basic sanitation services (which includes water supply). This fragmentation between levels of government and the accompanying lack of legal security are seen as major reasons why the participation of private companies in this sector is limited, present in less than 10% of the municipalities. The Concessions Law enacted in 1995, which regulated the system of concessions and allowed private companies to provide public services (Law 8.987/1995) and the Law on public-private partnerships enacted in 2004 (Law 11.079/2004) have not significantly increased the delivery of water and sanitation services by private enterprises as some believed they would. A recently passed law (Law 14.026/2020) altered the national guidelines for basic sanitation to give the National Water Agency, now the National Water and Basic Sanitation Agency (*Agência Nacional de Águas e Saneamento Básico*) the power to set standards for basic sanitation services, something that might increase the participation of private companies in the sector. Law 14.026/2020 has passed under extremely particular circumstances due to the Covid-19 pandemic, where the space for debates and lobbing by civil society was limited in comparison to the regular functioning of the congress. Initiatives to revise the national guidelines for basic sanitation in the light of neoliberal reforms had been in place since Michel Temer's term as president (2016–2019) and were strengthened under Bolsonaro's term. Here we highlight that this new law substantially altered the 2007 National Sanitation Law (Law 11.445/2007), which was approved after intense debated in the Congress with the broad participation of several interest groups. Groups opposing the law fear the privatization of the sector, but whether both national and international private actors will invest in basic sanitation in Brazil will depend, among other things, on the legal certainty provided by the law. Several lawsuits have been taken to the Supreme Court to challenge the constitutionality of the Law 14.026/2020.

4.4. Judicial Protection and Enforcement of Water Rights

As mentioned above, in the cases under study, the Brazilian and Colombian constitutions are "typical social rights constitutions" [42] while the case of Peru is different. Peru's 1993 Constitution—unlike its predecessor, which had a very comprehensive chapter on social rights—pays scant attention to these rights, whose content is left to the laws.

In Latin America, the jurisprudence on socio-economic rights is closely linked with constitutional design. Constitutional courts play different roles in each country. Among the three cases, the Colombian Constitutional Court is the clearest case of expansive constitutional justice, whereby "the justices themselves [define] influential visions of democratic constitutionalism, defending or expanding the welfare state and extending the benefits of ESCR to previously excluded groups" [42]. As described above, Peru and Colombia share

some similarities on water regulation that have been framed under a regulatory neoliberal model (such as the creation of independent bodies to supervise the quality of the services supplied by water providers). Given the "constitutional regulatory state" design of the Colombian state under the 1991 Constitution, the Colombian Constitutional Court has a key role in connecting the acts of private providers of public services with the state's obligation to oversee and guarantee the provision of public services [43]. The Colombian Court has intervened to balance, interpret, protect rights, and apply constitutional principles into the neoliberal regulatory scheme for water.

In the case of Brazil, even though it is not possible to state that the intervention of the judiciary has been of the same magnitude as in Colombia when it comes to the right to water, research shows that in cases related to water and sanitation, the courts and the State's Prosecutor Office (*Ministério Público*) usually intervene to warn public administrators and suppliers about their obligations regarding the rights to water and sanitation [44,45], but there are no rulings by the Supreme Court establishing a right to water.

In Colombia, access to water has been recognized as a human right by the Constitutional Court by way of its connection to the rights to life, health, and a clean environment [27]. Despite this judicial protection, water conflicts remain, particularly in connection to water equality and water sustainability. These challenges are rooted in the lack of a comprehensive government plan to protect the right to water in urban and rural settings. Strong economic activities in the country such as mining and agriculture constantly threaten water sources, while the main political actors struggle under the pressures of lobbying and the awareness of the high costs that the constitutionalization of the right to water would imply (i.e., ensuring a minimum amount of free water supply and reducing the scope of the extractive economy). As it has not been enshrined as a freestanding right in the constitution, the content of the right to water is disputed and the right itself is open to jurisprudential changes.

The interventions of the Colombian Constitutional Court and the legal framework in which it operates have not solved the problem of the lack of access to water in certain communities, but they have proven to be useful tools for the advancement of the protection of the right to access water for certain individuals, and in the context of environmental law cases. This is so, particularly in cases in which low-income petitioners have claimed the right to be reconnected to the water supply despite their inability to pay and have provided evidence of an imminent risk to or violation of their rights to health or life. In this context, the constitutionalization of the right to water would not only have symbolic value but would empower social organizations to demand from the government and the courts a systematic solution to well-known water conflicts, particularly water equality.

Other relevant cases in Colombia have been brought up by rural communities claiming the duty of the state to increase access to water infrastructure (water pipes and sewers) through collective litigation before administrative judges [46]. These cases have generally been decided in favor of vulnerable groups in the application of the collective human right to a healthy environment and public health, but not necessarily of the right to water. The same applies to conflicts involving the protection of rivers and paramos. The courts have decided in favor of an expansive notion of environmental protection including the use of legal categories such as rights of nature and structural judicial decisions. Water as a natural resource and element has thus been key to environmental protection cases in Colombia, and courts have even mentioned the need for the special protection of water sources in the context of climate change. Although it is still too early to tell, the progress achieved in guaranteeing the right to water in Colombia appears to hold the promise, from a transnational law perspective, for further consolidation in the future [27].

In the case of Peru, unlike Brazil and Colombia, the country lacks an institutional opportunity structure that allows easy access to the courts. As with other Latin American countries, Peru has a constitutional writ of protection known as the *amparo* action. Because of its nature (emergency protection), *amparo* is one of the least formal constitutional venues: it does not require an evidentiary stage and responds to the principle of flexibility. The

amparo action allows informal representation, i.e., any person who considers their fundamental rights abused can file a claim for protection in representation of diffuse interests or interest of another person. The Peruvian *amparo* should in principle provide the same level of protection as Colombia's *tutela* (also a constitutional writ of protection), but in practice, due to non-formal procedural deadlines that have distorted its urgent purpose, *amparo* is not an ideal mechanism to seek emergency protection in Peru [47].

On average, an application for *amparo* and a court order can take more than three months for the judge to decide whether to admit it or not [48,49]. So, it can be considered as a feasible route but with limited guarantees for the debate on the content of fundamental rights in the abstract. However, one key feature of the *amparo* process is its potential impact. *Amparo* actions can reach the Constitutional Court. When the case is dismissed in second instance, the Constitutional Court can analyze the demand. This means that through an *amparo* process it is possible to bring the debates to the highest level of constitutional justice.

The main limitation of this is the reluctance of the Peruvian Court to innovate. As mentioned above, Peru has seen less judicial activism on ESCR. Since 2004, the Peruvian Constitutional Court has ruled that such rights are enforceable only to the extent that they conform to the ideals of adequate development of the social purpose of the state, and the enforceability of these rights is restricted to the available budget. In the case of water, the Constitutional Court issued two decisions in 2007 (06534-2006-PA/TC and 6546-2006-PA/TC) recognizing the right to drinking water, linked to fundamental rights, including the rights to life, dignity, and the right to health; however, for the court, the right to water belongs to the group of social welfare rights (*derechos prestacionales*), which are not part of automatic enforcement (*autoaplicables*), but depend on the creation of additional legislation and policy. This jurisprudence reflects a key characteristic of the Peruvian Constitutional Court: a formalistic approach that limits the ability of the judiciary to innovate and develop jurisprudence. This feature has been pointed out as a major limitation towards expanding the grounds for rights in general [50] through litigation at the national level.

5. Discussion: A Comparative View of Constitutional Reforms on the Right to Water in Brazil, Colombia, and Peru

5.1. Procedures for Constitutional Reforms per Country

Article 2016 of the Peruvian Constitution established two mechanisms for amending the Constitution. The first allows Congress to discuss and approve a reform by two-thirds of its members on two consecutive legislatures. Most of the constitutional reforms, including the one to recognize the right to water, have followed this path, and achieving this has required an agreement between different political forces.

The Colombian Constitution can be reformed in three ways: by Congress, by a Constituent Assembly, or by citizens through a referendum (Art 374 Constitution of Colombia). Bills to reform the constitution through Congress can be introduced either by the national government, ten members of the Congress, twenty percent of members of local and regional administrative councils, or by a number of citizens that totals at least five percent of the electoral registry (Art 375 Constitution of Colombia). When following the legislative path, requirements for constitutional reform are stringent since the proposed reform must be discussed in two ordinary session periods, consecutively. In the second period, the reform must be approved by the majority of the members of each Chamber. Constitutional reforms via a constitutional assembly require the approval of both chambers of Congress. Citizens can convene the constitutional assembly if they approve it by at least one-third of the electoral rolls. (Art 376 Constitution of Colombia). The approval of constitutional reforms by means of a referendum requires the approval of Congress via a law approved by the majority of the members of both Chambers prior to the elections. After this approval is granted, elections are held, and they require the total participation of at least one-fourth of the total number of citizens (Art 378 Colombian Constitution). Citizens have attempted constitutional reforms related to the access to pipeline water in the form of referendums, but the Colombian Congress has not been supportive of these initiatives.

In Brazil, "the Constitution may be amended on the proposal of at least one-third of the members of the Chamber of Deputies or of the Federal Senate; the President of the Republic; or more than one half of the Legislative Assemblies of the units of the Federation, each of them expressing itself by the relative majority of its members" (Article 60 Brazilian Constitution). An amendment proposal is discussed and voted on in two readings in each house of the National Congress (the Chamber of Deputies and the Senate) and will be approved if they obtain 3/5 of the votes of the members of each house in each reading (Article 60 Brazilian Constitution). However, a difficult legislative process in theory has not prevented the constitution from being amended more than a hundred times from 1988 to 2020. In the case of Brazil, the fact that the constitution is highly comprehensive and detail-oriented may have contributed to such an amendment culture.

5.2. Attempts to Reform the Constitution per Country

All three countries have seen proposals for constitutionalizing the right to water. In Brazil, four proposals for a constitutional right to water have been presented since 2010, although none progressed to any relevant degree until 2020. Moreover, while most of these proposals refer to the 2010 UN resolution 64/292, the resolution was, surprisingly, not included as a justification for the most recent proposal, which was presented in 2018. It is worth noting that all four proposals refer to a "right to water" without providing a further definition of this right or dealing with the issue of privatization.

Since 2016, a series of measures have been taken in Brazil to strengthen the presence of private actors in the water and sanitation sectors. In July 2018, the president issued a provisional executive order (*Medida Provisória* 844/2018) to alter the legal framework for sanitation services in the country. The order, expected to stimulate the privatization of the sector and therefore supported by private companies, was not approved by Congress (a necessary step to becoming law). Privatization of water supply services is strongly opposed by a broad coalition of public sector trade unions, environmentalists, left-wing political parties, indigenous groups, academics, and activists in Brazil and abroad. The water crisis in São Paulo in 2014–2016 (city dwellers faced up to 12 hours of water cutoffs daily) is often used as an argument against the privatization of water supply services, which is generally taken as a synonym for the commodification of water. Sabesp, the company that provides water and sewage services in the São Paulo region, is a public–private partnership with 49.8% of its shares trading on the stock exchange. The pressure to secure profits for shareholders is seen by opponents of such partnerships as incompatible with the expansion of services to unprofitable neighborhoods. The tensions around this provisional executive order, and more recently around the above-mentioned newly passed law (Law 14.026/2020), serve to illustrate the difficulties in amending Brazil's Constitution to enshrine the right to water.

In March 2021, the most recent proposal to amend the constitution for the enshrinement of the right to water (PEC 4/2018) was unanimously approved by the Senate. This proposal still has a long way to go before its final approval, but it is intriguing that this unprecedented step was taken less than one year after the approval of a law that is expected to increase the participation of private companies in the water and sanitation services sector.

Meanwhile, Colombia has seen five attempts to reform the Constitution in this direction since 2010 [51], one proposal reached the final voting round in the Senate in 2017 but was defeated (Docket No. 22 March 2017, Senado: 14/2017 Cámara: 282/17). This proposal was presented again for debate in 2020 and is pending. Apart from these reform attempts, there was a major referendum campaign in 2009, which emanated from a network of 150 civil society organizations. The campaign sought a constitutional right to water, a ban on water privatization, state control over water management, the stabilization of tariffs, and a minimum supply of free water for all, which would have a major impact on the disadvantaged that are not able to afford the cost of safe drinking water. The draft referendum bill was dismissed on the basis of being too ambitious and unrealistic; it did not pass Congress [29,52].

These reform efforts have created tensions among Colombian political actors, and economic interests have lobbied to stop their materialization. Among the strongest opponents to water rights bills are extractive companies. The establishment of a minimum supply of free water for the most disadvantaged, combined with the strong enforceability of fundamental rights through the *tutela* mechanism, appears particularly threatening to these economic interests. The government of Colombia has weighed in on these debates, arguing that there would be serious difficulties in the implementation of a right to water, especially in rural areas. The Ministry of Environment has further argued that the government cannot legally commit to developing the necessary infrastructure to bring access to water to rural populations because it would be too costly [51].

The case of Peru is different but not necessarily more promising. Between 2011 and 2012, all political parties presented bills for constitutional amendments in this direction. All these bills originated in Congress—none of them were presented as citizen initiatives. Among the bills, one—issued by a congressperson from Ollanta Humala's ruling party—included a provision to ban the participation of private actors in the water supply. During this bill's debate, one actor from outside Congress actively participated: a representative of the SEDAPAL union. SEDAPAL is Peru's largest public water utility. In 2013, all the constitutional amendment proposals were merged into one bill and approved. The new bill did not mention the ban on private companies. The opinion issued by the Constitutional Commission of Congress (where the bills were discussed and approved prior to its submission to the plenary), explicitly stressed the need to recognize the role of private companies in the provision of pipeline water services.

Despite the high level of political confrontation within Congress and between the Congress and the executive branch (which included the censorship of state ministers), Congress asked the executive for an informed opinion (Office of the Prime Minister, Justice, and Human Rights, Ministry of Housing, Construction and Sanitation and the Nation Water Agency—ANA) and received positive feedback. The only agency that issued a negative opinion was the National Superintendence of Sanitation Services—SUNASS, which pointed out that the reform could negatively impact companies supplying water services by denying their right to cut water supply to households with unpaid fees. However, for Congress, this was not a concern. The debates and the opinion issued by the Constitutional Commission of Congress reflect that for legislators, as well as for the executive, the "progressiveness" feature of the right to water is subject to policy processes.

The reform did not trigger demonstrations or massive popular expressions of support or rejection. The constitutional reform was an extraordinary achievement considering the process required (in terms of time and support) and the weakness of the Constitution's provisions on social rights. Unlike Colombia and Brazil, where constitutional reforms are common, since 1993, Peru had passed only six constitutional reforms as of 2018. Since 2018, Peru has gone through a political turmoil, which have involved the resignation of the President Pedro Pablo Kuczynski (March 2018), a referendum to approve constitutional reforms (December 2018), the shutdown of the Congress (September 2019) and the election of a transition Congress 2019–2020 (January 2020). At the core of this political turmoil have been the debate around the constitutional reforms addressing the re-election of the congressmen, political parties financing, political parties' organization, and the immunity of congresspersons.

The fact that Peru passed this constitutional reform whereas Brazil and Colombia have not is puzzling, especially considering that all three countries have supported and accepted international treaties in this sense. It is interesting to observe how the articulation of international and national law varies contextually. Which factors may have influenced this difference? A salient feature of the Peruvian constitutional reform process is that it was supported by a range of political parties. According to some of the representatives directly involved in the process, the political cost of denying the right to water was too high in terms of the reputational costs. Even if the Constitutional reform does not necessarily prevent conflicts, to be portrayed as going against the right to water could have a high political cost

for stakeholders. Today in Peru, the access, management, and quality of water resources is a trigger for social conflicts [52–54]. The political and reputational costs of supporting the right to water in Peru do not include considerations related to the implementation of this right, which means that Congress did not analyze the costs related in bringing pipeline water to the population. For instance, while the legislators recognized that the right to water could involve investment in infrastructure, this decision was left to the executive. Moreover, neither the legislative nor the executive showed major concerns about the risk of prompting massive litigation which could affect providers as SUNASS did.

In contrast, the 2017 reform attempt in Colombia seemed too costly for congress members to approve because the constitutionalization of access to pipeline water would affect powerful stakeholders such as the government and mining companies. The Colombian government has openly stated its skepticism towards possible constitutional reform to enshrine the right to water due to its financial implications [51]. Particularly, the concerns point to litigation at the Constitutional Court level that is likely to support citizens' lawsuits, especially from rural and peripheral urban areas, with immense costs for the government. At the same time, such possible reform could curtail strong economic interests such as those of the mining industry, with many projects already licensed to transnational corporations and others being strongly lobbied for that purpose. In this case the government and lobbyists use the arguments of economic development to show that the constitutionalization of the right to pipeline water would affect the financial sustainability of the country. Unlike Peru, the analysis of the necessary infrastructure and the fear of litigation via *tutelas* has dramatically reduced the likelihood of a constitutional reform to be supported in Congress.

As for the case of Brazil, the right to water topic was included in the political agenda for more than one decade, with several proposals to amend the constitution for the enshrinement of this right. However, the legislative processes of these proposals have been minimal, something that suggests that they were strong enough to reach Congress but lacked commitment from congress members to be discussed and voted on. The first time one of these proposals was discussed and voted in the first reading in one of the houses of the National Congress was in March 2021. The strong social mobilization to organize the Alternative World Water Forum in opposition to the World Water Forum in Brazil in 2018 created momentum for the creation of Ondas, the Observatory on the rights to water and sanitation. Water is a cross-cutting topic with great relevance to different groups, Ondas being the most prominent national organization focusing on the right to water. This more cohesive social mobilization, associated with new legislation that is expected to foster privatization in the water supply sector, might influence the next steps of this process of constitutional reform. At the same time, the lack of a further definition of the right to water and the lack of a stand regarding privatization in the proposal in question tend to limit its impact on how Brazilian courts rule on access to water-related issues. In Table 3, we summarize the legal institutional settings for the enforcement of the right to water.

Some actors who have been involved in disputes around the right to water in Peru, while acknowledging the potential positive effects of the constitutional reform, have also highlighted that there is a risk of the right being restricted to household use, ignoring aspects of collective governance over water resources and water flows. In addition, some have voiced concerns regarding the government's capacity to effectively oversee the quality of the water supplied to households and to monitor the quality of water sources more generally. Finally, critics have argued that the government has offered the provision of drinkable water for urban use through water purification systems as a strategy to neglect the complex demands raised by indigenous populations regarding the contamination of water sources in their territories.

In the Colombian case, there are also complex demands from specific populations that have arisen in connection to the access to pipeline water. In the case of indigenous and rural communities, the traditional model of water provision in the country has not been effective. In some cases, rural communities have developed their own community-based aqueducts that follow their own models of management and operate based on the infrastructure

that these communities have developed [51]. In the case of indigenous communities, access to water is an ongoing issue that the government has failed to address. In these cases, both the cost of bringing the necessary water infrastructure to the regions and the cost involved in articulating existing managerial models, are relevant to the approval of constitutional reforms.

In Peru, as well as in Brazil and Colombia, water quality and availability are affected by increasing deforestation, land grabs, and industrial land uses including mining and extensive agriculture. These problems affect the entirety of society and ecosystems, but affect rural inhabitants, including indigenous peoples, disproportionally.

In the case of Peru, the constitutional reform did little more than enshrine what had already been established through legislation, which was consistent with already existing Constitutional Court jurisprudence. In this sense, the reform was virtually cost-free, although it may well prove more difficult to reverse than the previous legal regime. Peru's system for providing potential petitioners with access to justice is comparatively weak, which means that it is unlikely to result in mass litigation by poor individuals and communities. The Peruvian legal framework has already proven insufficient to guarantee access to water for vulnerable populations. The legal framework uses a narrow definition focused on individual urban rights that fail to encompass the collective and cultural aspects of water. This choice of definition has been ineffective at preventing social conflicts around water sources, which are among the main sources of social conflicts in the country [54].

Table 3. Summary of the legal institutional settings for the enforcement of the right to water.

	Regulations	**Institutional Opportunities for Rights Enforcement**		**Constitutional Reforms**
	Privatization of the Drinking Water Supply	**Emergency Protection through the Courts**	**Courts Openness to Innovate, Expand Rights**	**Approved Amendments**
Brazil	Possible	Yes	Strong	None
Colombia	Possible	Yes	Very strong	None
Peru	Possible	No (*amparo* is not so accessible nor fast)	Weak	One, allowing the privatization of drinking water supply. The constitutional reform is limited to drinking water.

Source: Prepared by the authors.

6. Conclusions

As part of the global efforts to extend access to water for all in conditions of quality and equality, during the past decades there has been an interplay of mobilization at the local and international levels to broaden the recognition of a self-standing human right to water. What exactly this right entails is still under construction. In this context, social movements have pushed for legal reform to enshrine this right in the constitutions of Brazil, Colombia, and Peru, with diverse results. These processes are taking place within the mixed context of market liberalization and neo-constitutionalism in Latin America since the 1990s.

All three countries have specialized legal norms and water governing institutions. In the case of Colombia and Peru constitutional jurisprudence has been developed connecting access to water with the rights to life and health, among others. However, the legal opportunity structure to enforce ESCR varies among these countries; it is stronger in Colombia and Brazil, and weaker in Peru. Although water infrastructure and governance have been extended and have become more technical, benefiting large populations especially in urban settings, today in all three cases there is the reality of highly unequal access to water, contamination of water resources stemming from extractive development, and deficiency

of community participation in water governance. The latter needs might play out in future constitutional reform struggles in Brazil and Colombia.

Protecting ESCR such as the right to water is costly for governments and constitutionalism limits the power of the ruling parties [55]. However, interestingly, not protecting human rights can be politically costly as well. These forces in tension seem to be influencing constitutional reform processes for the enshrinement of water rights in our three case studies.

For some countries, the cost of including a provision within their constitution "may be so low as to effectively render the constitutional promise 'cheap talk'," and so "not every country bears a very high cost of adopting constitutional language" [30]. In the case of Peru, there were not high political or economic costs for stakeholders as a consequence of the constitutional reform, while in Colombia the political and financial costs were too high and have discouraged legislators from approving a constitutional reform. Future research will be necessary to assess whether the political costs of constitutional reforms in Colombia will remain high, or whether legal mobilization will change the results of these tensions. In Brazil, it is difficult to say how costly a constitutional amendment to include a right to water would be without further definition of this right, or without dealing with the issue of privatization.

Despite the high political costs of constitutional reforms in Colombia and the unclear situation in Brazil, there are some factors that might motivate relevant actors to keep pushing for changes in the constitutional frames in these countries. For example, as the content of the right to water is disputed and can have both neoliberal as well as collectivist undertones, stakeholders may want to have their preferred interpretation recognized by the constitution. Second, so far jurisprudence has protected the right to water, but jurisprudence is highly dependent on the ideological preferences of magistrates; thus, a constitutional norm that is less open for interpretation can be considered worth mobilizing for.

Our analysis of recent constitutional reform processes in Brazil, Colombia, and Peru leads us to conclude that the enshrinement of the right to water in those constitutions is marked by (i) differences in how diverse interest groups want to use the right to water; (ii) the different incentives guiding members of congress to accept or reject these attempts; and (iii) the existing legal opportunity structures to enforce the right once recognized. These legal opportunity structures in turn act as incentives both for social movements to push for reform and for the ones in power to accept or reject it.

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Article

Constitutionalising the Right to Water in Kenya and Slovenia: Domestic Drivers, Opportunity Structures, and Transnational Norm Entrepreneurs

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Abstract: The international norm development that in 2010 culminated with the UN Resolution on the Human Right to Water and Sanitation changed international law. To what extent did this influence the parallel legal developments evident in many national constitutions across the globe? This article analyses the mobilisation for a constitutional right to water and sanitation in Kenya and Slovenia, identifying the main national and transnational actors involved and assessing their significance for the processes of constitutionalising the right. By analysing two very different cases, tracing their constitutionalisation processes through analysis of archival material, the article provides multifaceted insights into processes of norm diffusion from international norm entrepreneurs to the national level and the agency of domestic actors and their opportunity structures. We find that although the outcomes of the processes in Kenya and Slovenia are similar in that both constitutions contain articles securing the right to water, the framing of the right differs. Furthermore, we conclude that while there is involvement of international actors in both cases, domestic pro-water activists and their normative and political opportunity structures are more important for understanding the successful constitutionalisation of the right to water and differences in the framing of the right.

Keywords: human rights to water and sanitation; water access; constitutionalisation; norm diffusion; opportunity structures

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1. Introduction

In the past 20 years, there has been an acceleration in domestic constitutionalisation of the right to water following the adoption of the UN Resolution on the Human Right to Water and Sanitation in 2010. This indicates a diffusion of the international norm development to the national level [1]. In this article, we look more carefully at the dynamics at play to understand if and how such diffusion from the global level is happening or whether the domestic norm development is more autochthonous and driven by local actors. We probe this by identifying the main national and transnational actors involved in the processes of constitutionalising the right to water in Kenya and Slovenia and analysing how they worked jointly and separately to push for constitutionalisation and to influence the content of the norm in each case. Thus, our central research question is as follows: How does the right to secure, adequate access to water become constitutionalised, and how do processes of global norm development play into the social and political construction of the right at the domestic level? This is explored through two sub-questions: firstly, how do local activists mobilise around the right to water in different domestic contexts, and secondly, how do transnational norm entrepreneurs interact with local actors to influence the constitutionalisation of the right through mechanisms of norm diffusion?

Following the introduction, the remaining article is divided into six parts. Section 2 presents the theoretical lens used in the article, which combines theoretical work on international norm entrepreneurs, norm diffusion [2,3], opportunity structures [4], and

water governance [5–7]. The Section 3 presents the methodology and data material that will be used to trace the domestic processes of norm development and the interaction of local actors and transnational norm entrepreneurs. In Section 4, we briefly outline the trajectory of the human right to water as a human right norm from the International Convention on Economic Social and Cultural Rights (ICESCR, 1966) and the first discussion of water as a human right at the United Nations Water Conference in Mar Del Plata in 1977 to the adoption of the 2010 UN resolution. Based on this timeline, we present the main norm entrepreneurs involved in this development. Sections 5 and 6 present the case studies of Kenya and Slovenia, whilst the Section 7 brings them together in a comparative analysis, and Section 8 concludes the article.

Relevance and Rationale

Water is an essential resource for human survival; however, many countries in the world today face water-related issues, such as deterioration of water quality, water-related disasters, and water scarcity [5]. Population growth, economic development, and climate change are predicted to exacerbate and complicate these problems [5]. Water governance is also inherently complex due to being multisectoral and multilevel and subject to political negotiations among stakeholders with different interests [6,7]. The international human right to water and sanitation is part of a larger discussion on how water best can be governed to ensure sustainable management of water resources and access to water for all. Studying the mobilisation for the human right to water can thus give important insights into the nature of the contestation and discussions around water governance, including its priority on agendas, and into the public interest [5].

The case selection for this article is based on a most different systems design approach in which we looked for two cases with similar outcomes (constitutionalisation of the right to water in temporal proximity to the adoption of the international norm) but that differ on variables assumed to be relevant to explain this outcome, in this case s on factors shaping the conditions and opportunity structures of the local and international actors involved [8]. Our hypothesis was that relevant factors would be the material context related to water governance, the geo-political and normative context, and the structure of the decision-making process. We therefore looked for cases that differed in the levels and types of water governance challenges, among other due to differences in resource constraints and regional integration; where the geo-political context and the historical trajectories differed in ways potentially impacting the normative conditions related to social rights and state responsibility for distributive justice; and where the constitutionalisation processes differed in scope and openness of the decision-making structure. As illustrated in Table 1 below, the two countries we selected differ on these factors. They thus provide multifaceted insights into the processes of constitutionalising the right to water and mobilisation by both local activists and transnational norm entrepreneurs.

Table 1. Characteristics of cases (similarities and differences).

Factors	Kenya	Slovenia	Similarities and Differences
Time of constitutionalisation process	2002–2010	2013–2016	Similar time period, proximity to international norm development.
Scope of the right compared to international norm (which includes sanitation)	"Every person has the right (. . .) to reasonable standards of sanitation; (. . .) to clean and safe water in adequate quantities"	"(R)ight to water for household use" indirectly including the right to sanitation	Similar in scope although sanitation is implicit in Slovenia. Both reflect scope of international right but with differences in wording.
Material context: water governance challenges	High levels of water scarcity, low government capacity	Increased prices due to privatisation, deteriorating water quality, high government capacity	Differ in water governance concerns and capacity. Water and sanitation challenges are larger in Kenya, while State capacity to address them is lower.

Table 1. *Cont.*

Factors	Kenya	Slovenia	Similarities and Differences
Geographical context	Regional influences from Africa, particularly South Africa	Regional influences from EU and Europe	Different regional context. Slovenia's integration in the EU provides a more comprehensive water governance framework.
Normative context: broader rights discourse	Socio-economic rights; right to life with dignity; health; food; housing; social security; education	Anti-privatisation, environmental rights; right to natural resources; sustainability	Differ in normative context: in Kenya, socio-economic right discourse is strong; in Slovenia, anti-privatisation, public ownership, and environmental rights are dominant.
Scope of constitutionalisation process	Part of new constitution	Constitutional amendment	Differ in attention to issue. Presumably more focus on water in Slovenia, where it was the sole focus of an amendment, than in Kenya, where the whole constitution was on the table.
Platform for decision-making/mobilisation	Constitutional review committee (and referendum)	Parliament	Differ in decision-making structure, with the process in Kenya presumably more open to bottom-up mobilisation compared to Slovenia with a parliamentary process.

2. Theoretical Framework

A starting point for this article is the following question: How does the rights to secure, adequate access to water get constitutionalised, and how (if at all) does the process of global norm development influence the social and political construction of the right at the domestic level? We study the constitutionalisation of the right to water through a dual framework that simultaneously captures processes of norm diffusion from the international to the national level [3], the role of norm entrepreneurs [2] in this process, and domestic actors' agency, focusing on their opportunity structure [4]. Important for the latter are insights from the water governance literature clarifying how issues related to water and sanitation are and must be addressed in multiple sectors and at different levels of government and how stakeholders and activists engage at various points within the governance system. This section presents the key concepts and the overall theoretical lens.

2.1. Norm Diffusion and Norm Entrepreneurs

Finnemore and Sikkink presented a life-cycle framework for analysing the emergence and diffusion or cascading of international norms, distinguishing different stages in a norm's life, with distinct actors, motives, and mechanisms of change [3].

At the initial norm emergence stage, norm entrepreneurs and the work they do to promote a new norm is critical. Norm entrepreneurs are individuals, international organisations (IOs), and non-governmental organisations (NGOs) who want to change social or legal norms and who create or call attention to a new issue or norm by applying different strategies to "alert people to the existence of a shared complaint and [who] can suggest a collective solution" [2,3]. Finnemore and Sikkink emphasised persuasion as a main diffusion mechanism at the norm emergence stage. Due to the generally low level of acceptance, it is difficult to make others adopt the norm without some form of pressure. The initial low acceptance or support for the new norm can also be caused by differences in how water is perceived [9], which have implications for how actors prioritise different aspects of water governance and the opportunities for improved governance.

When a critical mass of states (about one third of all states) has adopted the norm or a critical state (one without which the achievement of the substantive norm goal is

compromised), Finnemore and Sikkink [3] argued that the process reaches a tipping point after which the norm is spread to states at a higher rate and without as much resistance. At this norm cascade stage, international socialisation is the main mechanism for norm diffusion or contagion. Socialisation comes in different forms, such as emulation and praise towards actors that advocate and follow the norm and ridicule towards the actors who do not follow the norm. These mechanisms can be performed by states, IOs, NGOs, and other network members. Institutionalising the norm in international rules or organisations can also constitute a critical juncture and take the norm across the threshold to the norm cascade stage by "clarifying what, exactly, the norm is and what constitutes violation and by spelling out specific procedures by which norm leaders coordinate disapproval and sanctions for norm breaking" [3].

Once the norm becomes widely accepted and internalised, behaviour conforming to the norm is habitualised, and there is a greater "taken-for-grantedness", the norm has reached the third stage of internalisation, where diffusion no longer relies on norm entrepreneurs.

According to Finnemore and Sikkink, not all norms reach the full life cycle. It is easier for norm entrepreneurs to speak "to aspects of belief systems or life worlds that transcend a specific cultural or political context" [3]. Hence, norms that involve bodily integrity and prevention of bodily harm or legal equality of opportunity are particularly effective transnationally and cross-culturally. Additionally, norms like the right to water, which concern the health and well-being of vulnerable and innocent people, resonate well with basic ideas of human dignity across borders and cultures.

Goodman and Jinks [10], expanding on the work of transnational norm diffusion, argued that processes of coercion and persuasion fail to account for a variety of ways in which social and legal norms diffuse. Their typology distinguishes between three types of mechanisms for social influence: coercion, persuasion, and acculturation. Coercion entails influencing behaviour by tipping the cost-benefit situation to reward conformity and punish nonconformity. It "does not necessarily involve any change in the target actor's underlying preferences . . . [but operates] by changing the cost-benefit calculations of the target state" [10]. Persuasion attempts to induce change in the belief or attitude of another person through transmission of a message and is a form of social learning [10,11]. Since norms never arise in a vacuum but emerge in a space with competing normative frameworks, an important persuasion strategy that norm entrepreneurs use is reframing the issue to make them resonate better with already accepted norms and values. Another persuasion mechanism is cuing, which targets audiences to engage in a process of "cognition, reflection, and argument" by introducing new information about the topic [10]. Acculturation is the process of conforming to beliefs and behaviour through socialisation with nearby and surrounding cultures, driven by both exogenous and endogenous pressures to assimilate. Actors are influenced by their social surroundings and change their behaviour and cognition accordingly. Acculturation thus operates through internal cognitive pressures (social-psychological costs of non-conformity; benefits of conformity; cognitive dissonance) as well as external social pressures (shaming, shunning, conferral of benefits through back-patting, and public approval) [10]. Any instance in which an actor or institution tries to influence the behaviour of another actor could include one or a combination of the features of all mechanisms.

When analysing the constitutionalisation of the right to water in Kenya and Slovenia, these theoretical perspectives on norm diffusion are used to understand the potential role of international norm entrepreneurs in the two processes and the significance of the different stages of international norm institutionalisation in which they take place. From the perspective of the domestic actors working to institutionalise the right, international norm development and norm entrepreneurs form part of their opportunity structure as potential resources and allies in the process or, in some cases, as back-seat drivers.

2.2. Opportunity Structure

When engaging in activities of norm development, such as constitutionalisation, the actors involved will, both consciously and subconsciously, consider their opportunity structure [4]. The opportunity structure is here understood as the sum of the internal and external resources and barriers that define the range of possible and opportune courses of action. This includes formal and institutional, financial, and historical factors that can influence and facilitate mobilisation of a cause through political channels, courts, or in social arenas [4,12,13]. Gloppen [4] distinguished between four different aspects of actors' opportunity structure: (1) The normative dimension refers to the resistance towards and support for the desired norm development in the society and the discursive resources available that might be mobilised to achieve the change, (2) the socio-economic dimension of the opportunity structure concerns the availability of the material resources required for different courses of action, and (3) the political opportunity structure refers to the openness of the political system to the actors and their concerns and the potential for achieving the desired norm change through the political process, while (4) the legal opportunity structure refers to the openness of the legal system and the availability of the resources required to advance the cause through legal mobilisation. Opportunity structures are not static or exogenous to the actors. Activists might shape or change them through their framing of the cause and through sequential "battles". The opportunity structure may also change as a consequence of external circumstances or actions taken by other actors in the field [4].

Especially interesting to our current analysis is the notion of normative opportunity structures and how different normative opportunity structures and the discursive strategies they allow can "determine the degree of visibility, resonance, and legitimacy" of a claim [4,14]. Similarly, in theories of norm diffusion, the shape and success of norm diffusion in a particular context vary according to the cultural match of the norm and the "receiving" context [15]. The more acceptance and proliferation there is of similar or supportive norms or claims within a context, the higher chances of success of the new norm; or, in other words, if a new norm resonates closely to existing normative values and claims, the higher chance of success [15]. Thus, the existing norms and values, the normative context of the society, is an important part of activists' opportunity structure. It will be influential in the choices that domestic activists and international norm entrepreneurs make, and on the impact the new norm will have.

Political opportunity structures will be shaped by the water governance structure in the given country. The spatial scale (how water governance is organised at different levels of government with different time frames and strategies) adds uncertainty and complexity [6] to water governance reforms and thus to the political opportunity structure of agents seeking change. With evidence suggesting an increase in the use of multi-level governance approaches in the water sector, there is a need to understand constitutionalisation processes also in light of the specific water governance context [9].

In the context of constitutionalising the right to water, we assume that in contexts where the ideas of human rights, socio-economic rights, and anti-privatisation movements are prevalent and widely accepted among relevant stakeholders or in the broader society, the right to water will resonate better and have a greater degree of acceptance. We also assume that the international norm development and the recognition of the human right to water and sanitation in 2010 significantly strengthened the normative opportunity structure for actors mobilising for a right to water norm at national level.

3. Methods and Data

We use a mixed methods approach to identify the key actors in the "battle" for including the right to water and sanitation in Kenya and Slovenia, the type of discourse they relied on to argue for and against the right and particular framings, and which opportunity structures they utilised to achieve their cause. We use different types of data material and analytical approaches to extract the relevant information and details from the data. The primary data sources are documents from the parliamentary and

constitutional processes and secondary literature. Interviews and written statements from activists engaged in the pro-water right group at international and domestic levels are used to contextualise the information.

For Kenya, we rely mainly on primary textual data material from the constitution-making process hosted by the Katiba Institute [16], which is a cooperation between the government and the national library in Kenya, established to promote the understanding and implementation of Kenya's Constitution. The archive contains documents from the constitution-making process [16]. Building on Loen's [1] study of the language in these documents, we identify discourses used during the constitution-making process. The Slovenian case is studied through parliamentary proceedings, secondary literature, and by written statements from activists and politicians engaged in the process of amending the constitution. The official website of the Slovenian National Assembly has a calendar of activities and meetings of the National Assembly, Državni Zbor [17], which allows us to identify when, where, and by whom the constitutional amendment was discussed.

To study the arguments and discourses around water and the right to water, we conducted text analysis of the collected documents. Moreover, we identified the actors involved by analysing documents, written statements, and interview data. Lastly, we conducted literature reviews and analysed interview transcriptions to identify and study the opportunity structures and mechanisms of diffusion in each country. This is a form of process tracing as we examine many intermediate steps in a process to make inferences about hypotheses on how that process took place and whether and how it generated the "outcome of interest" [18]. Process tracing is a fruitful way to study norm diffusion because of its ability to generate "empirical knowledge on decision-making processes, actors, and how their interactions produce the outcome of interest" [15,19,20].

However, for process tracing to be done well, it requires thorough knowledge about the case(s) itself, the theories and hypotheses that are being tested, and other, alternative explanations [21,22]. This is an exploratory study where there are still untested hypotheses and alternative explanations to be explored. The data base is not saturated since there are viewpoints and narratives that are not covered. Hence, we will not draw hard conclusions. Rather, we contribute insights into a larger field where these questions still are being asked. Furthermore, we believe that our research offers valuable knowledge on how constitutionalisation on the right to water and sanitation has been achieved. In a situation where 884 million people are without access to water and 2.6 billion with less than adequate sanitation and where implementation of the right to water is seen as a way to improve the situation for millions of people, these insights are highly relevant.

We start the presentation of our findings with an outline of the process towards developing a human right to water-norm at the international level and identify the key transnational norm entrepreneurs before looking at our two cases in more detail.

4. Transnational Norm Entrepreneurs and the Development of the Human Right to Water and Sanitation

Water, and to a lesser extent sanitation, has been on the international agenda for decades. We can trace water language back to the UN Water Conference in Mar del Plata in 1977 [23]. Although there has been a relatively broad consensus on the issue of water, some actors have put in a greater effort to legally enshrine the right to water and sanitation in international documents. These are the actors we label norm entrepreneurs. Before we get to these actors, we will give a brief outline of the trajectory of the Human Right to Water and Sanitation.

4.1. The International Norm Development

Already in 1977, issues related to water management were addressed at the UN Water Conference. The conference emphasised that "efforts to improve the economic and social conditions of mankind, especially in the developing countries . . . will not be possible to ensure . . . unless specified and concerted action is taken to find solutions and to apply them at the national, regional and international levels" [23]. It is also stated that "All

peoples, whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantities and of a quality to their basic needs" [23]. The International Convention on Economic, Social, and Cultural Rights (ICESCR) from 1966 did not include the right to water and sanitation [24], but the right to water was later inferred from the right to an adequate standard of living, notably in General Comment No. 15 by the Committee on Economic Social and Cultural Rights [25].

That multiple international water and sanitation decades have been proclaimed in recent history also illustrates the international community's attention towards and consensus on the importance of water related issues. These include the International Decade for Clean Drinking Water (1981–1990), the International Decade for Action "Water for Life" (2005–2015), and the International Decade for Action on Water for Sustainable Development (2018–2028) [23,26,27].

Following the adoption of the ICESCR in 1966, several international conventions contained an explicit right to water. In 1979, the Convention on the Elimination of All Forms of Discrimination Against Women declared that states are responsible for ensuring women the right "to enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport, and communications" [28]. The Convention on the Rights of the Child of 1990 states that children have the right to the highest attainable standard of health, which includes the "provision of adequate nutritious foods and clean drinking water" [29]. Additionally, the 2006 Convention on the Rights of Persons with Disabilities maintains the need for clean water services [30].

However, these treaties do not regard water as an independent right but rather as an essential component of other rights, most notably as the right to health and the right to an adequate standard of living. Not until the Committee of Economic, Social, and Cultural Rights issued General Comment No. 15 in 2002 was the right to water explicitly mentioned as a self-standing, independent right [25], and it was finally recognised as an independent human right in resolution 64/292 of 2010 [31].

4.2. Central Actors at the International Level

Madeline Baer argues that the path towards acceptance of the human right to water and sanitation differs from other processes of new rights emergence because much of the work happened outside the human rights regime and without the active involvement of traditional rights gatekeepers [32]. However, some traditional rights gatekeepers have been involved in the process, including the Human Rights Council; The Committee on Economic, Social, and Cultural Rights; and the United Nations General Assembly. As noted, the Committee issued General Comment No. 15 in 2002 [25], where the right to water is derived from the ICESCR's Art. 11, which states that "[t]he States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing, and housing, and to the continuous improvement of living conditions". Based on this, General Comment No. 15 states:

> The use of the word "including" indicates that this catalogue of rights was not intended to be exhaustive. The right to water clearly falls within the category of guarantees essential for securing an adequate standard of living, particularly since it is one of the most fundamental conditions for survival. [25]

The right to sanitation was not recognised as an individual right in General Comment no 15, but in 2006, the Human Rights Council (HRC) gave the Office of the High Commissioner for Human Rights the mandate to conduct "a detailed study on the scope and content of the relevant human rights obligations related to equitable access to safe drinking water and sanitation under international human rights instruments" [33,34]. The HRC planned a three-folded mobilisation process for the right to water and sanitation, of which the study was the first step. The next step was to appoint an independent expert that would develop a dialogue with stakeholders, work on best practices related to access to safe drinking water and sanitation and make recommendations to help realise Millennium

Development Goal No. 7 [35]. Lastly, they would advocate for an independent and explicit recognition of the right to water and sanitation [36].

In 2008, Catarina de Albuquerque was appointed The Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation (later, the Special Rapporteur on the Human Rights to Safe Drinking Water and Sanitation) [35]. The Special Rapporteur mobilises by conducting country visits, preparing thematic research, and cooperating with practitioners, stakeholders, and government to raise awareness of water and sanitation issues and mobilise support for recognizing these as human rights concerns [37]. During her first years in the mandate, de Albuquerque worked hard to advocate for the need to have an explicit right to water and build consensus around this idea [38].

Both the HRC and the Special Rapporteur placed focus on building political consensus around the right to water and sanitation. Informal meetings with NGOs and civil society organisations were held, and consultative meetings allowed states with different objections or worries to express them and come up with solutions [38]. In 2010, the main resolution on the Human Right to Drinking Water and Sanitation was adopted in the United Nations General Assembly, with 122 countries voting in favour.

Baer [32] adopted the terms champions and challengers when discussing the fight for the right to water and sanitation, and Bolivia is certainly among the right to water champions and a prominent actor in the anti-privatisation movement. Bolivia was a main architect of the draft resolution, which was co-authored and sponsored by several additional countries, including Uruguay, Ecuador, Nicaragua, Spain, and Germany [33,34]. The Independent Expert also contributed in important ways by ensuring that sanitation was ultimately included in the resolution [38].

This overview illustrates that there are many important international and transnational actors working towards establishing a right to water at the international level. Some of them were also connected to parallel national processes of constitutionalising the right to water, for example, in Kenya. The General Comment No. 15 was written by people with close ties to local and transnational organisations that were well-established in Kenya in the early 2000s [38]. We therefore expect that several of the people associated with the United Nations agencies, particularly the Committee on Social, Economic, and Cultural Rights, were prominent in the Kenyan context and part of the norm environment. Moreover, due to South Africa's progressive constitution in terms of socio-economic rights, we see South Africa as a critical state both in the African region and worldwide [39]. Due to the proximity of South Africa and Kenya, we expect there to be a strong influence. In Slovenia, we believe that the visit from the Independent Expert have contributed to some norm diffusion. We also expect some influence from the actors who were most vocal against privatisation (Bolivia, Project Blue Planet). Additionally, we believe that there will be involvement from the EU to comply with the Copenhagen criteria on competition and open-market policies [40]. In the case studies presented below, we illustrate how some of these actors played a part in the constitutionalisation process, while others were absent.

5. Kenya

In this section, we present our findings from the Kenya case study. It suggests that including the right to water in the constitution responds to a colonial past and the country's subsequent economic and political history and reflects a determination to reduce poverty and inequality through development.

Kenya's new constitution was adopted in 2010, and article 43 on Economic and Social rights explicitly states that all Kenyans have the right "to reasonable standards of sanitation" and "to clean and safe water in adequate quantities". This was the outcome of more than a decade of constitution-making following the adoption of the Constitution of Kenyan Review Act in 1998 and the swearing in of the Constitution of Kenya Review Commission two years later [41]. The Review Commission was responsible for providing civic education, seeking the issues and views of the people, and preparing a draft constitution for a National

Constitutional Conference (NCC) [42]. Political turbulence and changes in government put a halt to the constitutional review process, but in 2009, a Harmonised draft was finalised, and on 4 August 2010, it was accepted in a referendum.

The right to water and sanitation was included both in the early drafts and in the final constitution but changed during the decade-long process. The first draft, adopted at the National Constitutional Conference in 2004, included individual articles for the right to water and the right to sanitation. In a 2005 draft, both articles were removed, while the Harmonised Draft, which was presented by the Committee of Experts in 2009, reintroduced a free-standing right to water, while sanitation had now become a part of the right to housing. The President's party again tried to remove the right to sanitation, but the constitution adopted in 2010 brought back sanitation as part of the right to housing [1].

5.1. Key Actors

According to the official documents, the main actors in the constitution-making process in Kenya are official actors. These include the Review Committee and its sub-committees, The Committee of Experts (hereafter the Expert Committee), politicians, parliamentarians, and members of the government and the administration [1]. In addition, input and suggestions came from citizens, societal groups, NGOs, civil society organisations, external actors, and experts. External actors is a broad term, including international human rights activists, constitution experts, UN employees, and foreign academics (for a detailed overview, see Loen [1]). References to the Review and Expert Committees are present in a majority of the documents where water is an issue, while NGOs, civil society organisations, and individual persons or a combination are present in a quarter of these documents [1]. The external actors are not present in many of the documents (low frequency), but due to the expert status of these individuals and organisations, we believe that it is important to include them in the analysis. These include states in relatively close proximity with similar rights discourse (South Africa, Tanzania, Uganda, and Ethiopia), civil society organisations and local NGOs, international non-governmental organisations (Amnesty International, Wash United, Centre on Housing Rights and Evictions), foreign governments and agencies (German Society for International Cooperation/Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)), and international governmental organisation (United Nations bodies, WTO, IMF).

5.2. Political Opportunity Structures

The political system and culture of Kenya facilitated a participatory and open constitution-making process that provided actors with opportunities to influence the contents of the constitution. This should be understood against the background of Kenyan history. Following British colonial rule (1920–1963), Jomo Kenyatta became the first Kenyan president. He introduced an authoritarian regime, which was maintained by Danial Arap Moi until multiparty elections and other democratic reforms were introduced in 1991. Due to weak opposition and an uneven playing field, Moi and his KANU party won the following two elections and remained in power until conceding to Kibaki in 2002. With the reintroduction of multi-party elections in 1991, a culture of resistance and human rights emerged that triggered and infused the constitution-making process [43].

The official documents, several of which are verbatim reports from public hearings and meetings held over a period of two years around the country, suggest that the pro-water right actors faced a relatively open political opportunity structure. Public hearings and meetings convened by political leaders and the Review Committee were used to create dialogue and public participation. The meetings were platforms for the public to speak about what they wanted to have in the constitution. The meetings always consisted of representatives from the Review Committee, but the meetings had different topics, and some were hosted especially for certain groups, such as women's representatives, children, and religious groups. This was meant to increase public participation but also to give different groups an arena to lift their considerations and inputs. The Review and Expert

Committees also collected written, recorded, or otherwise conveyed information from citizens regarding their perspectives, views, and interests. External actors were invited to participate in public meetings and topical seminars and to join the Committee of Experts, and the media ensured that the Review and Expert Committees could convey information and education to the public. The political system was seemingly responsive to the public grievances, and there was little overt opposition towards constitutionalising the right to water. At the same time, some government partisans repeatedly removed the articles on water and sanitation from the constitutional draft, and it is reasonable to assume that this would have prevailed had the previous government and president stayed on in power.

5.3. Normative Opportunity Structures

The key normative framework that pro-water-and-sanitation-rights actors in Kenya build on is development, which is strongly related to Kenya's high levels of poverty and inequality. The authoritarian regime that came into power after independence from Great Britain in 1963 maintained the liberal economic system introduced by the colonial rulers [41–45]. However, the period after independence also brought low state capacity, inequality, and poverty. This became central to the struggle for democratic and economic reforms during the 1980s.

We started the search in the 271 documents from the constitution-making process. After excluding the irrelevant documents, we ended up with 84 documents containing references to water and 48 documents referencing sanitation [1]. The documents span ten years, from 26 March 2001 to 5 December 2011. Mentions of water and sanitation in the documents have been coded into categories of types of discourse, actors, and other relevant categories (the coding scheme is provided Table A1 in Appendix A). Several actors participated in shaping the constitutional draft. We argue that the international norm development that had been ongoing for many years and accelerated in the decade leading up to the adoption of the constitution greatly shaped the normative opportunity structures for water and sanitation rights activists in Kenya and that certain regional and national factors also have been influential for the acceptance of and adherence to a right to water norm.

The document analysis shows that the most frequent frame for both water and sanitation is right (63 and 27 documents, respectively; this includes references to water as a resource that citizens have the "right" to access, as well as the "right" to water, and water as a "human right"). The second highest frequency is groups and provision for water and sanitation, respectively. *Groups* refers mainly to marginalised groups, minorities, informal settlers, and women, who are particularly vulnerable to water scarcity, whilst *provision* encompasses references to the responsibility of the state to provide water. The rights to water and sanitation are also mentioned with reference to the following categories: access (to water or lack thereof), natural resources and environment (protection of natural water sources, sustainable usage of water resources), low-income groups (need for affordable water and sanitation services for low-income groups), health (the importance of clean water and sanitation for public and personal health), custody (the right to standards of sanitation for persons held in custody), and housing (right to sanitation as part of right to housing). There is a great deal of inequality in Kenya, and socio-economic and geographical cleavages overlap. This is reflected in the documents, which frequently mention areas where the level of poverty and water scarcity is much higher.

In terms of actor categories, state actors most frequently refer to water and sanitation as rights. Provision is also often mentioned as the responsibility of the state, and they also discuss water as natural resource and a part of the environment that must be protected. The provision and groups references to water are similar in the context of sanitation. However, sanitation is also brought up in relation to groups of people living in deplorable conditions in Nairobi.

The public and civil society groups often refer to water and sanitation in the context of rights, groups, access, and low-income. They are concerned with the lack of clean and

affordable water for people in the poorer districts and regions, slum-dwellers, and informal settlers. They worry about women who must walk many kilometres every day to collect and carry water in kegs and *mitungis*, and they want the government to ensure access to clean piped water to all citizens.

Civil society and citizens clearly expected human rights to be anchored in law through constitutionalisation, and as is clear from the discussion above, the right to water and sanitation received attention and support during the constitution-making process. Members of the public were highly concerned with marginalised groups and the lack of equality among sociodemographic groups, such as people in the northern districts of the Eastern, North-Eastern and Rift Valley Provinces. The people who live there "are deprived of the same chances for education, of access to water, and of security in comparison with those in most other parts of the country". Similarly, poor and marginalised groups "are deprived of access to basic needs especially education, medical care, housing, transport, sanitation", and "lack access to basic amenities, such as water, food, and shelter". It is also evident from the Review Committee's final report that the people:

> ... expected that the new Constitution would take into account the needs and aspirations of the disadvantaged and marginalised members of society. In many respects, they expected the new Constitution to solve a myriad of socio-economic problems and create a drastic improvement in their livelihood, especially alleviate poverty, eradicate corruption, create employment opportunities, and provide adequate food, shelter, health, education, water, and land for every Kenyan (sic). [16]

We assumed that South Africa's 1996 constitution would be a significant regional influence, and our analysis does show signs of South African influence. Based on the findings we present below, it is likely to assume that some form of norm diffusion took place through mechanisms of persuasion, acculturation, and coercion. The prominent South African Human Rights advocate Geoff Budlender was invited to provide the Review Committee and Standing Committee on Human Rights with knowledge and experience from the South African constitution. He offered detailed insights into how the South African constitution provides routines for promoting and securing human rights and for allocating resources for progressive realisation of rights and how affirmative action is used to protect marginalised and vulnerable groups. This is a way of inducing the listeners to the belief that safeguarding human rights should be done by securing them in the constitution, as was done in South Africa. As demonstrated in the excerpts below, Budlender emphasised how South Africa found inspiration for their constitution in international documents. By framing this as an international standard, we might even claim that it amounts to a form of coercion by appealing to conformity and cuing Kenyans to see this as the appropriate behaviour:

> The international community has long realized that for our inherent dignity and right to life to be respected, the material conditions of our lives must be such that it is possible. [...] That is recognized from long ago in 1948 by the Universal Declaration of Human Rights, which deals very explicitly with the conditions of life, deals very explicitly with the need for matters such as inadequate standards of living including food, clothing, housing, medical care, and social services [...].
>
> In South Africa, what we did was we followed the structure of the international covenant on economic, social, and cultural rights. We said we would have a general statement of the rights followed by the description of the duties. You have got [... a] copy of our bill of rights, and [if] you turn later to Section 26 of that, you will see the housing right, which explains how we have tried to deal with it. Let me turn to that. Section 26 I of our bill of rights of our Constitution contains a general statement of the right. Everyone has the right to have access to

> adequate housing; it is a fundamental right, which everyone has to have access to [. . .], and it is the general statement of the right. [16]

Other important external actors are donor and development agencies, such as the German development agency GTZ (which became part of GIZ in 2011). The project "Realising Human Rights in Development Cooperation" aimed to improve and develop the water sector in Kenya through a water sector reform [46]. As part of the reform, Kenya adopted the 2002 Water Act, which treats water as an economic good [47]. However, the assistance from GTZ was not only about commodification of water; the organisation also aimed to implement the reform through a human rights-based approach [48]. Therefore, whilst funding new water policies and encouraging commodification of water services, they also advocated for the human right to water. This was not seen as contradictory; rather, GTZ argued that economic reform would enhance the provision of and access to water for all citizens [48]. After surveying citizens, they found that there was a lack of knowledge and understanding of the costs and resources it takes to run water and sanitation services but that consumers see access to water supply as a right and that there is a "high consumer sense of responsibility for payment for water consumption" [49]. It was thus a goal to inform the public on the ins and outs of water management and services and to raise awareness on water shortage in the country, and in 2004, the GTZ adopted a communication strategy for the Water Act that would focus on the:

> . . . use of community-based social, religious, and civic/ political organisations, individuals, and networks in Kenyan society as channels and influencers to communicate with people "face-to-face". Examples would be speaking through women's groups, barazas, and church groups, etc. A radio entertainment-educational serial drama linked to community level activities is also recommended as a central activity for this phase. [49]

GTZ thus participated in water right advocacy both through mechanisms of coercion and persuasion.

6. Slovenia

In 2016, Slovenia amended its constitution to include Article 70a, which states that everyone has the right to drinking water and that water is a public good subject to the authority of the state [50]. Slovenia is one of only three European states that have constitutionalised the right to water, along with Iceland and Hungary [50]. In this section, we outline the process that led to the constitutional amendment in 2016 and trace the interaction of the central domestic actors with international norm entrepreneurs. We find that the right-to-water campaign strongly reflects an anti-privatisation discourse, the political culture, and history of state ownership and nationalism as well as Slovenia's European Union membership.

In terms of water resources, Slovenia is one of the richest countries in Europe. Located in the middle of Europe, with mountainous topography, its access to the Adriatic and Mediterranean seas, and its many underground rivers, gorges, and caves, Slovenia has access to great amounts of groundwater and surface water [51]. While this is a great foundation for providing accessible, affordable quality drinking water to all its citizens, the large surplus of relatively cheap water is also an attractive commodity for foreign companies [51]. There are several examples of foreign companies buying local breweries and local water suppliers or getting concessions for water use, causing an increase in drinking water costs and deterioration of water quality. The Dutch brewing company, Heineken, for example, took over two local breweries and bought a local water supply in Laško, thus causing a 30 per cent increase in drinking water costs for the city's inhabitants [51]. Another company acquiring a concession for a water purification plant caused a deterioration of water quality [51]. These developments led to the emergence of advocacy for constitutionalising the right to water starting in 2013.

In 2014, fear of a proposed EU directive on the awarding of concession contracts gave fuel to the advocacy, where civil society activists joined forces with parliamentarians [51]. If an EU directive is adopted, EU Member States must adopt their national legislation to EU law. This particular directive would, among other things, regulate privatisation of Member States' water resources. There were strong concerns about this directive among several Member States because of the involvement of entities in sectors that would benefit from its adoption, particularly private companies in need of water resources [51,52].

6.1. Key Actors

There are two main groups of actors in the Slovenian case. Firstly, several political leaders and parliamentarians were engaged in the efforts to amend the constitution. Secondly, there was an incredible mobilisation and support from the public. In the aftermath of the proposed EU directive, Slovenian parliamentarians proposed to include the right to water in the constitution. They wanted to protect the water resources and Slovenians' access to drinking water from future privatisation legislation. There was broad consensus among parliamentarians the necessity of a constitutional amendment, and the first proposal was put forward by a coalition of 35 legislators [52].

The public mobilisation also played an important role, sending strong messages that water is a public good, water resources should not be privatised, and water supply for the population cannot be carried out as a profit-oriented activity. An interesting point of study is the interplay between political parties and the public mobilisation. A prominent person in the right-to-water mobilisation in Slovenia stated that "political parties are encouraged by the people to include the protection of water resources and the protection of nature in general in their political agendas" [53].

Very important in the Slovenian context was a civilian initiative consisting of lawyers, journalists, programmers, filmmakers, national and European politicians, and volunteers contributing skills, knowledge, and determination [54]. The lawyers provided advice on the legal obstacles and opportunities for constitutionalising the right to water, whilst the filmmaker created "short videos with celebrities, which had a big impact to the people" [54]. The initiative used several strategies to raise awareness and encourage debate the issue, from social media to lectures and events. The analysis we present below suggests that the civilian initiative spread awareness and generated support for the right to water through mechanisms of socialisation and acculturation.

6.2. Political and Socio-Economic Opportunity Structures

Slovenia's political and geopolitical history is unique, and especially the socialist Yugoslavian legacy has been important both for Slovenia's position and opportunities for integration into the European Union and for democratisation and modernisation opportunities [55]. Starting in the late 1980s, Slovenia introduced several liberalising reforms, including multi-party elections, toleration, and eventually promotion of pluralism and diversity [55,56]. Slovenia also started an enduring process of European integration, economic transformation, and privatisation motivated by a strong democratic, economically liberal, pro-Western orientation among both citizens and elites [55,56].

Slovenia emerged from the Yugoslavian federation with a low debt burden compared to other Yugoslavian states due to its successful negotiations with IMF and international lenders [57], and their initial conditions for development were more favourable than for most other Central and Eastern European countries. They also continued their left-wing government tradition, taking a more modest approach towards market liberalisation and privatisation also in their accession negotiations with the EU (favouring domestic owners, shares to state-controlled funds, employees, and internal buyouts). The pressure from the EU to privatise businesses and shares caused strong domestic resistance, which was "embedded in a domestic consensus surrounding the advantages and ultimate success of Slovenia's less radical transition path" [57]. The ambition to privatise the economy created political turmoil, but eventually, a privatisation plan and legislation allowing for

sale and free distribution of state enterprise stocks was drafted, and in November 1992, it was adopted by the parliament [58]. The transition to a market economy is an important backdrop of the process of constitutionalising the right to water in 2016.

In the early 2000s, when a Slovenian brewery was faced with pressure to sell shares to a foreign company, Slovenians united in their opposition towards "the perceived threat of a foreign takeover of a beloved national brewery" [57]. It also prompted a more general public debate on foreign versus domestic ownership. Those who were sceptical towards foreign ownerships argued that the only motivation for the foreign actors is profit and that they specifically seek out the less developed European countries to take advantage of them, whilst those in favour argued that it would improve economic integration, and they also referred to the second Copenhagen criterion on "a functioning market economy and the capacity to cope with competition and market forces in the EU" [57].

The increased privatisation coupled with a fear of losing autonomy towards the EU on concession contracts gave fuel to the advocacy for constitutionalising the right to water that started in 2013 [53]. In 2015, the Civil Initiative for Slovenia and Freedom was formed. This is an informal connection of people "with different skills and of various professions, ages, ideological, and religious beliefs" [54] who took part in a campaign to promote the constitutionalisation of the right to drinking water, which was their main and only issue.

One particularly important member of the civilian initiative is Brane Gulobović, a former parliamentarian with knowledge on how to go from mobilising the issue to actually implementing policies and new laws. He became a pivotal actor in the initiative but also in the formal political system, as he had connections and ties to sitting parliamentarians.

During his term in parliament, he initiated the process towards amending the constitution. In August 2013, the Parliamentary Committee on Agriculture, Forestry, Food, and the Environment organised a public hearing on how to best ensure and protect the right to drinking water [17], and in March 2014, Gulobović and other members of parliament submitted a proposal to initiate the procedure of amending the constitution [52,59]. The process was disrupted by early elections, in which Gulobović was not re-elected, but in June 2014, the Constitutional Commission organised a public event on drinking water, where the proposed Brane Gulobović's draft amendment was discussed [59]. Two years later, the Civilian Initiative for Slovenia and Freedom met with the President of the National Assembly and handed over 45,000 signatures supporting inclusion of the right to drinking water in the constitution [60].

In July 2016, a constitutional amendment was proposed to the Constitutional Commission to enshrine in the constitution the provision that everyone has the right to safe drinking water. On 3 November, the Commission approved the proposal. The President of the National Assembly emphasized that he would do everything possible to complete the process of signing the Constitution as soon as possible, and already, in mid-November, the National Assembly discussed amending Article 70A of the Constitution of the Republic of Slovenia, adding the Right to Drinking Water. The amendment was adopted by 64 votes in favour and 0 against [61]. A week later, the National Assembly met for an extraordinary session to promulgate the constitutional amendment [60].

There were few opponents to constitutionalising the right to water in Slovenia. The politicians generally supported the amendment from the start, and any reluctance in the political leadership was removed by the civilian initiative and the signatures of 45,000 citizens.

6.3. Normative Opportunity Structures

The normative opportunity structure of the water rights activists should be understood against the backdrop of Slovenia's political history and ideology. The literature that exists on Slovenia's slow and modest transition strategy shows that despite the wish to integrate into the European Union, the country held on to a national patriotism and socialist traditions [57]. Anti-privatisation positions have constitutional support. Article 2 of the constitution reads: "Slovenia is a state governed by the rule of law and a social state",

and the constitution has strong corporatist features and emphasis on workers' rights [57]. The public's perception and understanding of terms such as public good is also highly contingent on the country's socialist past. Citizens have strong feelings about social justice, equality, and access to goods for everyone [62]. Natural resources, such as water, wild-growing foods, air and forests, peace, infrastructure (municipal properties, roads, paths, wells, ponds, monuments, and viewpoints), and public services, are all viewed as public goods or common goods by local Slovenes [62]. This sentiment was shared by the civilian initiative:

> *Our main goal was to be clearly written into the Constitution that water and water land is a natural public good, over which no-one can acquire ownership rights; that everyone has the right to drinking water; that the water supply of the population cannot be owned by private companies in any legal-formal way, and that the provision of the water supply to the public is a service which should not generate profit and that the water supply of the population has the absolute precedence over economic exploitation in the case of the water crisis or drought or other crises, and that the water resources be managed sustainably, with thoughts on our posterity.* [53]

The first appearance of water as a topic in parliamentary documents that we have identified is from August 2013, shortly after Brane Golubović entered parliament. Most of the parliamentary debates on this topic relate to anti-privatisation and efforts to prevent profit-oriented water supply [53]. Because of the water abundance in Slovenia and the high quality of the groundwater, there is little focus on contemporary problems of water distribution and access, but rather, the focus is on protecting future water provision and ensuring access of high-quality and affordable drinking water to future generations of Slovenes.

7. Discussion

Both in Kenya and Slovenia, the processes of constitutionalising the right to water involved a vibrant and participatory civil society and emphasised water as essential for current and future generations' health and quality of life. However, there are also many differences, including the sites of reform, the nature of the actors involved, and their ties to international pro-water right actors.

7.1. Political Structures and Contexts

In Kenya, advocacy for constitutionalising the norm mainly took place before the constitutional review committee, a body constituted for the purpose, whereas in Slovenia, it took place in and was initiated by Parliament. In Kenya, parties were actively involved in the constitution-making process, but the final decision was made in a referendum (bottom-up). In Slovenia, the decision was made in Parliament (top-down), but the process was characterised by public participation and a broad public debate on the topic. In Parliament, the amendment was supported by broad coalition and accepted by consensus.

Whilst Kenya's 2010 constitution was developed alongside the international process of recognising the human right to water and sanitation, Slovenia's adoption of a constitutional right to water in 2016 took place in a somewhat different international context with a more firmly institutionalised international human right to water but also less international focus on the issue. While not a straight-forward process, enshrining the right to water in the Slovenian constitution was a significantly quicker process than in Kenya.

Finally, the regional context differs. Slovenia, as a member of the European Union, is integrated in an institutional context with stronger implications for domestic norm development. As we have seen, the constitutional amendment came as a counter-initiative to a suggested EU directive allowing for more privatisation. Kenya's regional context, while more loosely integrated, was one in which other countries already had constitutionalised the right to water (South Africa, Gambia, Uganda, and Ethiopia between 1994–1996) or were in the process of doing so (Niger in 2010, Somalia in 2012, and Eswatini in 2013) and where the South African influence in particular seems to have been significant.

7.2. Framing of the Right to Water

In Kenya, actors actively use rights language and primarily economic and social rights in their discussions on water and sanitation access. There is a strong emphasis on development, lifting people out of poverty, and ensuring access to health services, school, work, and basic needs, such as food and water, for all Kenyans. In the documents, we find that some state actors rely heavily on human rights discourse, with a main focus on the right to housing and the right to health. This illustrates how framing a new norm in a similar manner to already existing norms and rights increases chances of the new norm being understood, accepted, and secured by the actors within the state [3,10,14]. Additionally, in Slovenia, pro-water right activists used an existing framework of rights and values to generate support and acceptance for the right to water norm among citizens and politicians. The discursive opportunity structure favoured a contestation of the privatisation trends of the past decades and opposition of attempts from the EU to force privatisation in water-resource dependent sectors. Unlike in Kenya, where privatisation was argued by some actors as a route to ensuring universal access to and quality of water, it was broadly perceived as a threat in Slovenia.

The citizens and organisations who participated in the discussions in Kenya used a similar language as the state actors but stressed the importance of the state's responsibility for providing for socio-economic rights, including water. While there were prominent human rights advocates among the state actors, evidence suggests resistance from within the government. In some documents, the right is referred to as the right to access water and not merely the right to water. This has been suggested as a strategy for subliminally transferring their obligations to private actors [32]. This suggests that while the state was willing to accept a limited right to water for their citizens, they were reluctant to commit to ensuring all citizens access to high-quality drinking water. This is not a unique challenge. It is easy to sign off on a document giving citizens de jure rights but difficult to ensure de facto realisation. The Sustainable Development Goals created specific target goals as an attempt to administer this challenge [63].

7.3. Links to International Actors and Discourses

Analysing the processes of constitutionalising the right to water in Kenya and Slovenia, we find little evidence supporting a strong effect of the international recognition of the Human Right to Water and Sanitation in UN Resolution 64/292. Especially in Slovenia, where the right to water was already rooted into the discourse of anti-privatisation and a desire to preserve natural resources in national ownership, we see that the advocates had little need for a new normative framework. As noted by of the most prevalent activists:

> There were no special contacts between our civic initiative and other NGOs across Europe, nor did we follow the example of some other countries that constitutionalised the right to water. [53]

Nevertheless, there are influences from external actors in both countries. While not central transnational norm entrepreneurs in the international mobilisation for a human right to water, they are of importance in the two cases. In Kenya, participants in the discussion repeatedly referenced the UN Convention on Economic, Social and Cultural Rights and, more specifically, rights to housing, life, and health in discussions on the right to water and sanitation. The analysis also suggests that citizens, organisations, and state officials concerned with the lack of adequate services and facilities framed the right to water as a state obligation. This finding suggests a stronger case of emulation international conventions and mechanisms in Kenya. The South African constitution also constituted a reference document from which Kenya found inspiration to include a strong bill of rights and mechanisms for monitoring and protecting these rights in the constitution. Last but not least, international donors and GTZ in particular influenced the discourses on water, both in terms of privatisation and rights-based approaches. In Slovenia, the scope of a domestically existing norm on state ownership, national patriotism, welfare, and protection and conservation of natural resources was widened based on their existing political culture

and norms. However, the pro-water right movement in Slovenia grew in response to the EU directive on concession contracts, which was lobbied for by private companies looking for ways to increase profit [51].

8. Conclusions

As we have shown, to understand the constitutionalisation of the right to water in the two cases, the central actors´ normative opportunity structures are key. The different ways of framing the right to water in the two cases demonstrate that alternative framings may be equally successful in creating support and acceptance for the norm. The domestic process does not necessarily have to rely on the United Nations-adopted norm on the human right to water and sanitation. The case studies show that to frame the right to water in relation to other human rights, development, environmental conservation or anti-privatisation can also be effective, if it resonates with the normative context.

There is clear evidence that favourable domestic political opportunity structures were important in both cases, illustrated by the pro-water right activists' usage of open political channels and many options for influence. Additionally, we find that domestic pro-water right actors use mechanisms of socialisation and acculturation to proliferate relevant information about the norm and to generate support for it, whilst international actors to a lesser extent influenced norm diffusion. When they have done so, such as GIZ and South African constitutional experts in the Kenyan case, they have used mechanisms of coercion and persuasion. In Slovenia, the main external influence seems to be the reaction sparked by the coercive influence of the EU directive.

The findings are in line with the expectations that normative opportunity structures are important. However, in contrast to our expectations, we find that the potential structures for advocacy opened by the international norm development and the recognition of the human right to water and sanitation in 2010 rarely were utilised by actors in Kenya and Slovenia. We believe that more research is needed on how international right norms are diffused, how domestic opportunity structures influence the acceptability of the norm at national level, and how actors can manipulate and change these structures. There is also need for more research on the effects of constitutionalisation of the right to water on citizens' possibility to enjoy their right.

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Informed Consent Statement: Informed consent has been obtained from the interviewees to publish this paper.

Data Availability Statement: The following data presented and analysed in this study is available: Constitutions of Kenya and Slovenia can be accessed from: Comparative Constitution Project. Constitute project. https://www.constituteproject.org/search?lang=en (accessed on 28 July 2020). Parliamentary documents from the Slovenian Parliament can be accessed from: Državni Zbor. Kronologija VI. Mandata. https://www.dz-rs.si/wps/portal/Home/is/kronologija/!ut/p/z1/04_Sj9CPykssy0xPLMnMz0vMAfIjo8zinfyCTD293Q0N3L2cTAwCjf19nYLMgwyDPQz0w8EKvCy9Hb3ACoyCTA0C-XYycfIMNjA2CjQz0o4jRb4ADOBKpH4-CKPzGF-SGhoY6KioCAIQMZuY!/dz/d5/L2dBISEvZ0FBIS9nQSEh/ (accessed on 11 October 2021). Documents from the Constitution of Kenya Review Committee were downloaded from: Katiba Institute. Katiba Digital Resource Database. http:

//www.katibainstitute.org/Archives/ (accessed on 18. November 2019). The Katiba Archive website has since been removed. Documents that were downloaded from the website and used in the analysis can be obtained from the corresponding author, along with the code syntax used to download the documents from the website through the RStudio software.

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Appendix A

Table A1. Coding categories.

Variable		Coding
Type of document		Constitution (drafts and old constitution included)
		Paper
		Report
		Working document
Present actors or author of document	State actors	Review Committee
		Expert Committee
		Special and topical committees
		Politicians and parliamentarians
	NGOs and CSOs	NGOs or civil society organisations
	The People	Private persons, the people
		Representatives of groups in society
	Professionals	Scholars, academics, professionals
	NA	Not applicable
Water		Yes No
Sanitation		Yes No

Table A1. *Cont.*

Variable	Coding
Water and sanitation—categories	Right / human right
	Minorities, marginalised groups (women, children, pastoralists, informal settlers)
	Persons held in custody
	Responsibility for provision
	Low-income groups
	Custody
	Natural resources and environment
	Inequality (geographical, social, in access)
	Health
	Provision
NGOs or civil society actors	Names of the NGOs and civil society actors

Sources: Documents collected from Katiba Institute n.d. [16], codes from Loen 2020 [1].

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The Evolution of the Right to Water in India

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Abstract: Water is indispensable to human life. From references to water in numerous international treaties to ultimately, the adoption of United Nations (U.N.) General Assembly resolutions emphasising separate recognition of the "right to water" in 2010, we now have a freestanding human right to water. In this paper, I review the constitutional and legal framework underlying the right to water in India, and present a comprehensive analysis of judicial decisions that have enforced this right, based on insights from two original datasets. The first dataset is a compilation of all water laws, and the second is a compilation of all High Court and Supreme Court judicial decisions on the right to water. My review of the articulation of the "right to water" in India shows that this articulation has occurred largely oblivious of the international human rights movement on water. Apart from the mainstream articulation of the "right to water", I also describe specific articulation of the right by two marginalised groups, namely *Dalits* and *Adivasis*. In so doing, I show how the articulation of the "right to water" has strengthened the claims of the former, but not those of the latter group.

Keywords: human right to water; courts; drinking water; irrigation; marginalised groups; indigenous communities; social and economic rights; human rights critiques; right to life; right to environment

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1. Introduction

Water is indispensable to life. Human beings can survive for three weeks without food, but only three days without water [1]. Moreover, there can be no food cultivation without water. Conceptually, therefore, the human right to life, regarded as the most basic and fundamental of all rights, must include within it a right to water. In international human rights law, however, this correlation has been made only since the late 1970s. The human right to water evolved from initial references to water in numerous international treaties, including the Convention on the Elimination of All Forms of Discrimination against Women, 1979 [2], the Convention on the Rights of the Child, 1990 [3], and the Convention on the Rights of Persons with Disabilities, 2008 [4]. Ultimately, in 2010, the United Nations ("U.N.") General Assembly adopted resolutions on the "Human Right to Water and Sanitation" [5] and on the "Human Rights and Access to Safe Drinking Water and Sanitation" [6] emphasising separate recognition of the "right to water". As a result, we now have a freestanding human right to water [7]. In 2002, the U.N. Committee on Economic, Social, and Cultural Rights ("E.S.C.R".) adopted General Comment 15 noting that "The human right to water is indispensable for leading a life with human dignity". The Committee also defined the core content of the "right to water" to include "everyone's right to sufficient, safe, acceptable and physically accessible and affordable water for personal and domestic uses".

While the right to water has been included as a constitutional right in many domestic constitutions [8], in India, the "right to water" has been read into expressly enunciated fundamental or constitutional rights, namely, the "right to life" through judicial interpretation. Despite extensive recognition of the "right to water" in both constitutional and international law, the content of the right and its enforcement vary greatly across national contexts [9]. Nevertheless, the recognition of the "right to water" as an international human right implies that every individual in every country of the world must have access to a

certain quantity of affordable and good quality water, and states are under an obligation to provide the same "subject to the maximum of their available resources".

In this paper, I review the underlying constitutional and legal framework and present a comprehensive analysis of judicial decisions that have enforced the right to water in India. Based on this review, I describe how the content of the right to water in India evolved in light of underlying water statutes and common law principles that developed during the colonial period as a result of colonial policies that prioritised irrigation over drinking water supply. Despite the developmental ambitions of the independent Indian state, in so far as these laws and policies were grandfathered during the post-colonial period [10], without an express constitutional obligation to provide basic drinking water to the people of India, the independent Indian state's focus shifted only very gradually to recognising a legal obligation to provide drinking water to the population. This happened, in great part, due to judicial articulation of a right to clean drinking water, derived from the right to a "healthy environment" which in turn was read into the "right to life" under Article 21 of the Constitution.

Apart from the judicial articulation of a generally applicable "right to water", I also describe the articulation of this right on behalf of two marginalised groups. The first group includes *Dalits* or Scheduled Castes that constitute 16% of India's population, who have historically faced systematic discrimination within mainstream Hindu society based on their caste. Originating in ancient India, and transformed by medieval elites, and later by British colonial rule, the caste system in India was a system of social stratification that consigned people in different castes to different hereditary occupations, social status, and ways of life [11]. *Dalits* or untouchables were placed outside the caste hierarchy and were denied access to common sources of food and water. The second group includes *Adivasis* or indigenous peoples that constitute 8.6% of India's population, who have been historically marginalised because they have lived largely in geographical isolation in hills and forests, and have distinct cultures and ways of life that are outside mainstream Indian society [12].

Historically, *Dalits* have sought integration and respect within mainstream Hindu caste society which has been denied to them for centuries, in accordance with the dominant development paradigm. On the other hand, *Adivasis* have sought development on their terms outside mainstream Indian society. As a result, *Dalit* articulation of the "right to water" seeks not only to secure state provisioning of water in the traditional vertical exercise of their rights against the state but also to ensure enforcement of access to that water provision through the horizontal application of the right in criminal law against upper castes that block such access [13]. For *Adivasis*, however, articulation of the "right to water" is inextricably linked to their rights to land and forest, seen as part of one indivisible ecosystem.

The period from the late 1970s onwards is widely regarded as a period of burgeoning human rights in the world with increasing recognition for various social and economic rights. Since the dawn of the millennium, the U.N. E.S.C.R. has articulated the core content of many social and economic rights including the rights to food, health, water, housing, work, and social security, and nondiscrimination in accessing all of these rights. The same period has also witnessed a frontal attack on the human rights movement, derived primarily from Marxist and legal realist critiques of rights. Marx critiqued individual rights as rights of egoistic beings, arguing that beneath the veneer of "liberal rights for all", existed a highly unequal and inegalitarian society [14]. The legal realist critique of rights was similar to the Marxist critique in its dismissal of the public/private distinction as describing the reality of our political and legal experience. Legal realist scholars do not deny the importance of individual rights but argue that there is no such thing as a pre-political private sphere, a state of nature, which precedes the state. The private sphere itself is constituted by the state, and by law because it depends on the state for the provision and enforcement of norms, which regulate relations within that sphere. Moreover, these norms cannot be deduced from abstract ideas of rights but rather require contextualized normative choices made by state actors [15].

Human Rights critics such as David Kennedy have contended that the idolatry of human rights standards has led activists to overburden the concept with ever more ambi-

tious social and economic rights, whilst preventing them from considering other solutions to these issues. The expression of vague values as legal norms opens them to selective interpretation and gives an advantage to litigious sections of society aware of how to manipulate the legal system to protect their interests [16]. Through a historical review of the human rights movement, echoing Marx, Sam Moyn has argued that human rights norms selectively emphasize one aspect of social justice, neglecting the distributional victory of the rich. They grant status equality, not distributive equality [17]. Human rights politics, including with respect to the emergence of social and economic rights, sensitize us to visible indigence and repression, but not to welfare. Consequently, human rights are a guarantee of sufficient provision, not a constraint on inequality [17]. Moyn argues that even though post-colonial states deployed the language of rights effectively to agitate against global injustice of hierarchy and power [17] (p. 125), they fared worse than developed states in combining concerns of sufficiency and equality. Moyn does not, however, explain why this has been the case.

In this paper, I examine the salience of these human rights critiques through an evaluation of how the right to water has evolved in India as a legal, and later a constitutional right, from the colonial period to the present. In doing so, I show that in the context of post-colonial states that broadly retained the legal and administrative structure of the colonial state, the shift in the state providing for basic needs of citizens, including the rights to food and water happened only gradually. Moreover, in these post-colonial states, before the state distributed the pie, it needed to enlarge the same, something developed countries did not need to do. This led to a focus on economic development, understood mainly as economic growth to be achieved largely through industrialisation and capital formation, which in turn, led to increased resource extraction, including that of water resources.

Moreover, since ensuring basic food needs of the population was a key focus of the post-colonial Indian state, water resources continued to be diverted to agriculture. In the absence of a recognised obligation to provide drinking water to the population, the constitutional right to water carved out of the "right to a healthy environment" played an important role in shifting the state's focus from appropriation of water for irrigation purposes to protection of water resources from overuse, exploitation, and pollution. These developments in India occurred before the international recognition of the human right to water. I show that the recognition of the right to water as part of the fundamental "right to life" has led to greater accountability of state and private actors with respect to overuse and pollution of water resources which was absent during colonial times, and also resulted in reclaiming resources appropriated by the colonial state through the articulation of the "public trust" doctrine [18].

2. Materials and Methods

In this paper, I trace the evolution of the "right to water" in India by reviewing two original datasets of all water laws, numbering 156, and all High Court and Supreme Court decisions, numbering 248, that turned on the articulation and formulation of the right. I compiled these datasets with the help of researchers at the Land Rights Initiative. In addition, I review all constitutional law provisions relevant to the articulation of the "right to water" and all national water policies of the Government of India. I supplement my analysis wherever appropriate with the help of secondary literature on the "right to water" in India and internationally.

For the first dataset on "water laws", we compiled a near-comprehensive set of all water laws from the colonial period until the present. We started with a set of twenty-four water laws we had originally compiled for the Initiative's Mapping Indian Land Laws project [19]. We then supplemented this original set with laws collected based on keyword searches relating to "water law" for every state and union territory in India. In addition, we used the following keyword searches corresponding with entries in the state list of the Constitution, namely, "water supply", "irrigation", "drinking water", "water pollution", "drainage", "canals", and "tanks". We also collected all local self-government laws in rural

and urban areas with provisions pertaining to water supply, drinking water, and minor irrigation. Based on this, we created a dataset of 156 laws.

For the second dataset, we attempted to create a comprehensive set of all judicial decisions on the "right to water" from the colonial period to the present. Collecting a comprehensive and/or representative set of water rights cases is difficult since not all cases are published in case reporters and those that are reported are not necessarily available in legal databases and/or searchable through legal search engines. At the Land Rights Initiative, we collected our set of cases through keyword searches on four legal search engines, including *Manupatra*, *Westlaw*, *SCC Online*, and *Indian Kanoon*. These cases were compiled using the search term "right to water". In the first stage of analysis, all cases where the "right to water" appeared somewhere in the text of the cases were included. Through a careful examination of the cases, all cases where the textual appearance of the "right to water" had no bearing on the dispute involved in the case were excluded. These cases were then supplemented by additional cases that were collected using the search terms, "access to water", "pollution of water bodies", "conversion of water bodies", "privatisation of water bodies", "irrigation", "drinking water", "water dispute", "*Dalits* and water", "*Adivasi* and water", and "water and women". Through this process, a dataset of 248 judicial decisions was created which had some bearing on the articulation and enforcement of the "right to water". The dataset included 59 Supreme Court and 189 High Court decisions. It may be noted that interstate river water disputes were excluded from this set because they did not include any references to the human right to water, nor were these cases caught while using the search term "right to water".

3. India's Water Challenge: Scarcity, Quality, and Inequality

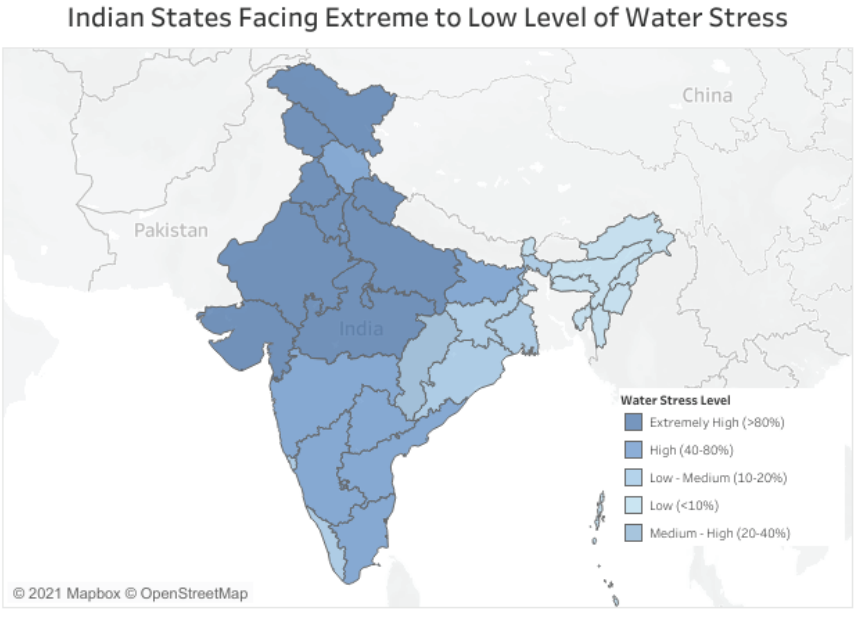
India is the world's largest democracy. Home to over a billion people, constituting 18% of the world's population, India has only 4% of global renewable water resources within its territory [20]. According to World Bank data, India is the second-most populous country in the world but the seventh largest in terms of land area. Table 1 contains the basic population, land area, and per capita availability of water data for India [21].

Table 1. Basic population, land area, and water data for India.

Population	Land Area	Population Density	Renewable Internal Fresh Water Resources Per Capita
1.38 billion	2,973,190 km^2	464 people per km^2	1080 m^3

The World Resources Institute estimates that India is the world's 13th most water-stressed country [22]. According to the *NITI Aayog*, the government's think tank, nearly 600 million Indians are dealing with high-to-extreme water stress wherein over 40% of the annually available surface water is used every year [23]. Unequal distribution of surface water resources, population growth, and urbanisation, are responsible for water scarcity in many parts of India [24]. Extreme climatic phenomena, such as droughts and floods, are common and expected to be exacerbated by climate change. Scheme 1 below shows the state-wise distribution of water stress in India [25].

A recent report by the Central Water Commission and Indian Space Research Organisation estimates that India's per capita water availability in 2011 reduced to 1651 m^3/year from 1820 m^3/year in 2001. The report projects that the per capita availability will drop to 1228 m^3/year in 2051, approaching the "water scarce" condition [26]. However, India's water challenges are not just about scarcity in terms of quantity of water available, but also involve issues of quality and access seen in the form of "unsafe and depleting groundwater reserves, inequities in access, polluted rivers, and water bodies, and their adverse impacts on people's health and productivity" [27]. Extreme water scarcity between different regions has resulted in recurring interstate water disputes not just between states within India's federal framework, but also districts and communities [27].



Scheme 1. State-wise distribution of water stress in India.

In 2015, 88% of the total population had access to at least basic water. This access was greater in urban areas, with 93% of the population having access to water as compared with 85% in rural areas [28]. In rural India, only 49% of households had exclusive access to a primary source of drinking water on their premises. At 58%, this ratio was marginally better for the urban population [29]. Apart from the rural–urban disparities, these figures also mask huge social inequalities in the availability and quality of water to individuals. For instance, only 28% of *Dalits* in rural areas have access to water within their premises.

4. Legal and Policy Framework Governing Provision of Access to Water

Despite extensive powers to own, access, regulate, and control water, neither the colonial state nor the independent Indian state asserted or recognised any explicit obligation to provide drinking water to its teeming millions. Colonial policy on water, as in the case of land [30] and forests [31], was focused on ensuring greater state control over the resource to maximise revenue generation for the British Crown. The century and a half old Easements Act, 1882, still active today, preserved the right of the government to regulate the collection, retention, and distribution of water of rivers and streams flowing in natural channels, and of natural lakes and ponds, or the water flowing, collected, retained or distributed in, or by any channel or other work constructed at the public expense for irrigation [32]. Irrigation canals were at the forefront of British imperial policy in India ostensibly as a "development" mechanism to prevent recurring and widespread famines but were poorly planned and implemented, in part because they were motivated less by the needs of the local population and more by the need for good returns on capital invested by a gentlemanly elite of landed aristocracy and city financiers [33]. Irrigation laws were enacted to acquire land and appropriate water for the purposes of building these canals [34]. Such laws only recognised an obligation to compensate for the loss of drinking water as a result of the construction of canal works. A few other laws enabled municipalities to prohibit contamination of drinking water and to make available public drinking fountains for general public use and provision of water in case of emergencies [35].

The Easements Act, 1882, also recognised the rights of landowners to all surface and groundwater [36]. Thus, the colonial legal framework recognised rights of water as appurtenant to those of land and to be used for purposes of drinking water, personal and domestic uses, and irrigation. Other legislation pertained to water taxes in accordance with the imperial goal of maximising state revenue [37]. Thus, the British imperial state's ambitions were focused more on state control of water resources and making water available for purposes of generating food, rather than ensuring adequate, accessible, and affordable drinking water to the population.

The Government of India Act, 1935, enacted in response to Indians' demands for greater autonomy for British India specifically gave power to provinces concerning water supply, irrigation, canals, drainage and embankments, water storage, and hydropower. Following independence in 1947, India opted for a federal system of government with a unitary bias ordained by the Indian Constitution that was adopted in 1950. The Union Parliament and executive not only have greater powers of legislation and execution [38] but also have primacy in areas of concurrent jurisdiction [39] and residuary powers [40] of legislation. The Constitution retained the framework of the Government of India Act by including "water" in the state list. Law-making power and executive responsibility for water and sanitation services fall squarely within the purview of state legislatures [41], with the exception of river water disputes, which fall within the purview of Parliament [42]. The Interstate River Water Disputes Act, 1956, provides the statutory framework for adjudication of disputes between upstream and downstream states along the lines of common law principles regarding sharing of water between riparian landowners, suitably adapted to the conditions of Indian states. The Act also constitutes a tribunal to adjudicate disputes between states parties. Water scarcity, especially in the water-stressed states, frequently leads to interstate water disputes, and increasingly between districts and communities. However, as described in Section 2, these disputes have been excluded from this paper as they do not involve any articulation of the "right to water".

Pursuant to Article 252, which empowers Parliament to make laws on a state subject if asked to do so by two or more states, Parliament also enacted the Water (Prevention and Control of Pollution) Act, 1974 (the "Water Act"), and Environment (Protection) Act, 1986 (the "EPA"). The Water Act provides for the constitution of central and state boards with powers to consent to the establishment of particular industries upon fulfilment of conditions under the Act; to enter, inspect, and sanction the same for pollution. The EPA is an umbrella legislation designed to provide a framework for central government coordination of activities of various central and state authorities established under previous laws, such as the Water Act and the Air (Prevention and Control of Pollution) Act, 1981.

For the first four decades post-independence, India did not have a national water policy. In 1987, the government drafted the first National Water Policy followed by two policies in 2002 and 2013. The National Water Policy, 1987, recognised the need for a nationally coordinated policy to tackle water stress and the situation of floods and droughts in the country. The policy noted that the principal consumptive use of water until then had been for the purposes of irrigation [43], and affirmed the government's commitment to providing adequate drinking water facilities to the rural and urban population by 1991 [43] (para. 9). The policy also recognised the need to regulate the use of groundwater to avoid overexploitation and also to ensure coordinated policies with respect to surface and groundwater [43] (para. 7). Finally, the policy also stressed the necessity for planning water resource development projects while maintaining the "ecological balance" and preserving the environment [43] (para. 4.1). In 1992, following constitutional amendments that sought to bring about greater decentralisation of power, state governments were mandated to devolve functions relating to drinking water and sanitation in urban areas to institutions of local government, i.e., municipalities, and in rural areas with *panchayats* [44]. Rural *panchayats* now have powers and responsibilities with respect to drinking water supply, minor irrigation, water management, watershed development, and fisheries.

The National Water Policy, 2002, largely echoed the 1987 policy. The National Water Policy, 2012, articulated for the first time the need to evolve a National Framework Law as an umbrella statement of general principles governing the exercise of legislative and/or executive (or devolved) powers by the centre, the states, and local governing bodies. The policy reiterated the interdependent nature of surface and groundwater and advocated water recharge and prevention of overexploitation of groundwater. In a nod to neoliberal water policies, it also introduced some guidelines for water pricing [45]. A total of 16 states and union territories in India have adopted policies in accordance with the National Water Policy, 2012 [46].

Following the National Water Policy, 2012, the central government circulated a draft National Water Framework Bill for comments from states in 2016. This bill contains provisions for an overarching national legal framework with principles for protection, conservation, regulation, and management of water as a vital and stressed natural resource [47]. Recognising that "water is a finite substance", the bill for the first time presents an integrated framework for groundwater and surface water management. The bill broadens the definition of "water for life" to include the basic safe water requirements for realising the fundamental right to life of each human being, including drinking, cooking, bathing, sanitation, personal hygiene, and related personal or domestic uses, with an additional requirement for women for their special needs; and includes water required for domestic livestock. The bill emphasises that the right will be available to all irrespective of "caste, creed, religion, community, class, gender, age, disability, economic status, land ownership and place of residence" [48]. The preamble to the bill specifically states that the articulation of the "right to water" in the bill is in accordance with the Indian Supreme Court's articulation of the "right to water" pursuant to the fundamental "right to life". The bill also imposes a corollary obligation on the government to ensure every person's right to safe water. The bill makes no reference to the human right to water as articulated in General Comment 15. It also leaves the prescription of what would constitute a "sufficient" quantity of water to the discretion of the state government. However, to date, the bill remains in draft form. Enacting the National Framework Water Bill into law would go a long way in imposing a binding obligation upon the central and state governments to provide water to all Indians.

At the Land Rights Initiative, we compiled a near-comprehensive dataset of all water laws from the colonial period until the present. As Figure 1 shows, only 22 laws (14%) were enacted before the adoption of the Constitution, while the remaining 135 laws (86%) were enacted post-1950.

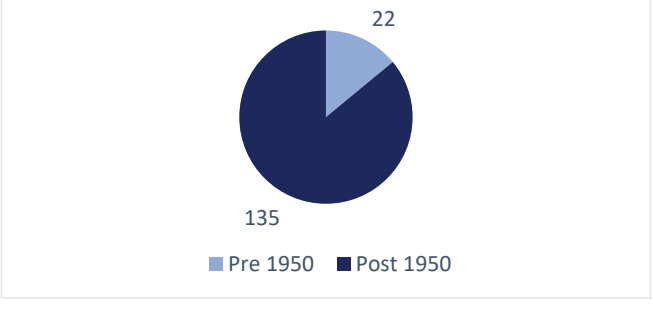


Figure 1. Distribution of water laws pre- and post-1950.

As Figure 2 shows, the laws in the dataset largely pertain to six major water categories, namely, drinking water supply, irrigation, water tax, groundwater regulation, water pollution, and planning and management of water bodies.

Figure 3 shows a timeline distribution of laws. In line with the discussion above, we find that nearly half of the 22 colonial laws pertained to irrigation. These laws only impose an obligation on the state to compensate for the loss of drinking water due to

the construction of irrigation works. The remaining half of the laws correspond to water taxes. Irrigation laws continued to dominate legislation on water in the first two decades post-independence and received another fillip in the post-liberalisation era in the 1990s.

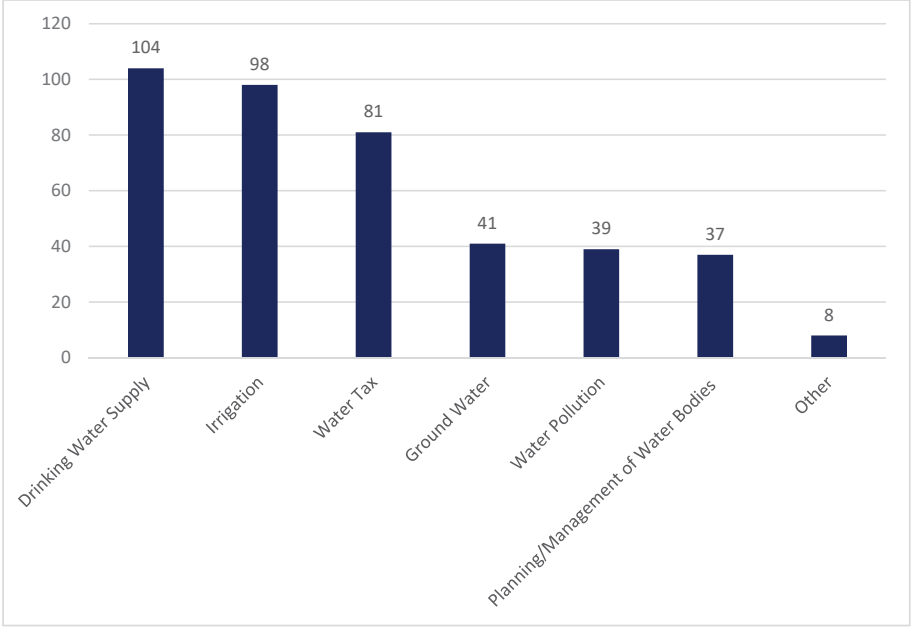


Figure 2. Major categories for water laws.

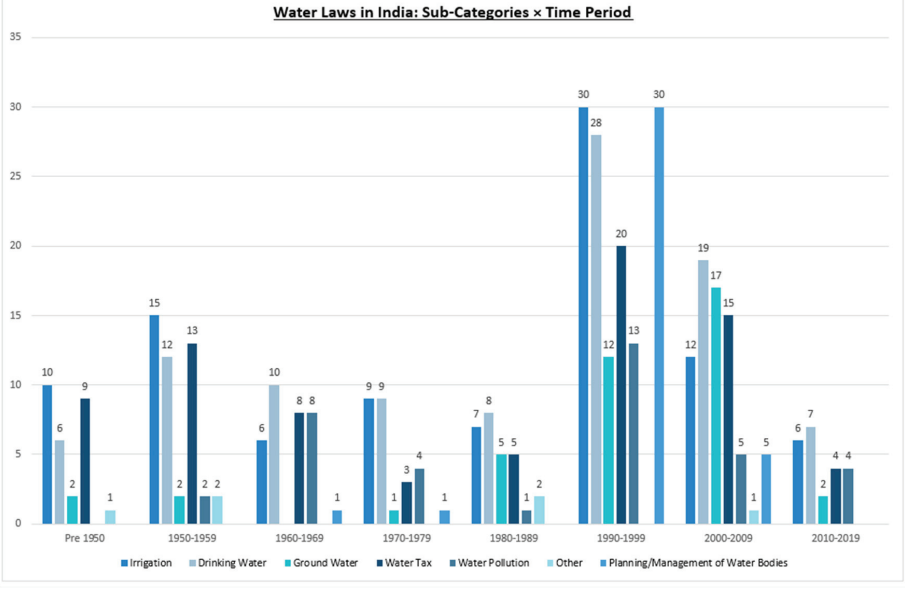


Figure 3. Timeline distribution of different categories of water laws in India.

In contrast, we see no legislation containing an affirmative obligation on part of the state to provide drinking water until the 1990s. Even the laws enacted post-1990 only impose affirmative obligations to increase drinking water supply through management of water bodies and through protection of water from encroachment and pollution. These laws do not contain any obligation on part of the government to ensure drinking water to every household but give local self-governing bodies, *panchayats*, and municipalities powers to draft schemes that would ensure provision of drinking water to households. None of these laws or national water policies recognise the human right to drinking water. They largely adopt a governance, not a rights framework to the provision of drinking water.

Many laws containing provisions against pollution of water were enacted post the 1990s, following the enactment of the Water Act and the EPA. These laws seek to protect the quality of water. Finally, we see an attempt to reverse the unchecked overuse of groundwater that was permissible under the liberal provisions of the Easements Act, 1882, through the enactment of legislation regulating overuse of groundwater post-1980.

5. Constitutional Right to Water in India

Part III of the Indian Constitution guarantees certain fundamental rights, including the rights to life (Article 21), liberty (Article 19), and equality (Article 14). These rights correspond with rights guaranteed under the International Covenant for Civil and Political Rights [49]. There is no express articulation of the "right to water" as a human right in the Indian Constitution. Particular to the Indian context, Article 17 in the Fundamental Rights Chapter abolishes "untouchability" and forbids its practise in any form. This provision reflects the dignitarian impulses of the "rights discourse" underlying the drafting of the Fundamental Rights chapter, premised on the dignity of individuals and their right to realise their full potential as human beings and equal citizens of newly independent India [50]. The Untouchability Offences Act, 1955, renamed as the Protection of Civil Rights Act, 1976, provides penalties for preventing a person from bathing in or taking water from a sacred tank, well, spring, or water-course, which is one of the critical ways in which *savarnas* or upper castes in Indian society practice untouchability towards *Dalits* or lower castes. Discrimination usually arises only when the *Dalit* settlement does not have its own water source, and the entire village (*savarna* and *Dalit* habitations) have to use the same well/tank/tap. *Dalits* often have no direct access to community sources of water. Patterns of discrimination include a *savarna* person collecting water and filling the containers of the *Dalit* residents; separate queues for *Dalits*, and special time allocation for *Dalits* to fill water from community taps. According to the 2011 Census, only 28% of *Dalit* households in rural areas have water facilities within their premises [51].

Although the Constitution does not enshrine any special protections for women, it is well documented that the burden of making water accessible to Indian families in both rural and urban areas primarily falls on women. The position is worse for *Dalit* women whose access to water is curtailed both by the limited availability of water and social discrimination against *Dalits*. Discrimination patterns may range from waiting for long periods before being allowed to fill their pots, abusive language, and even physical violence and humiliation at the hands of upper caste people [52].

Part IV of the Constitution lists the "Directive Principles of State Policy", which must be applied by the state in making laws but are unenforceable as rights [53]. These principles correspond with rights guaranteed under the International Covenant on Economic, Social, and Cultural Rights [54]. Even though there is no obligation upon the state to provide "drinking water" to its population, Article 47 of the Constitution obliges the state "to raise the level of nutrition and the standard of living and to improve public health" as its "primary duties". In 1976, the Forty Second Amendment to the Constitution introduced Articles 48A and 51A. Article 48A obliges the state to "endeavour to protect and improve the environment and to safeguard the forests and wild life of the country". Article 51A created fundamental duties on part of citizens, which include, inter alia, the right to protect

and improve the natural environment including forests, lakes, rivers, and wild life, and to have compassion for living creatures.

6. Judicial Articulation of the "Right to Water"

Judicial articulation of the "right to water" as a legal right predates the Indian Constitution. As described in the previous section, in colonial India with a primarily agrarian economy and society, the "right to water" was articulated by litigants in the form of common law and statutory principles pertaining to claims for irrigation, easement rights of access to water by the dominant owner on the servient heritage [55], and sharing of water between upper and lower riparian owners [56].

Post-adoption of the Constitution and establishment of the Supreme Court in 1950, we see judicial articulation of the "right to water" as a fundamental or constitutional right by the Supreme Court and High Courts in the exercise of their power of judicial review. In what may be considered another instance of unitary bias within India's federal structure, the Constitution creates a unified judiciary with the Supreme Court at the apex. The law declared by the Supreme Court is binding on all courts in India [57]. It is important to note here that while the Supreme Court was created for independent India by the Constitution in 1950, some High Courts in India have continuously existed since the nineteenth century [58].

Articles 32 and 226 of the Constitution empower the Supreme Court and High Courts to grant appropriate remedies for violations of fundamental rights. Having asserted its power of judicial review as a "basic feature" of the Constitution, the Supreme Court has used its review powers extensively [59].

There exist several qualitative studies of judicial decisions rendered by the Supreme Court and High Courts on the right to water in India. These include reviews by Philippe Cullet [60] and Vrinda Narain [61]. However, a comprehensive qualitative and quantitative study of all Supreme Court and High Court cases on the "right to water" has not been conducted thus far. The "right to water" dataset created at the Land Rights Initiative included 59 Supreme Court and 189 High Court decisions. As mentioned above, all the Supreme Court decisions were rendered post the adoption of the Constitution and the creation of the Supreme Court in 1950. However, since many High Courts predate the adoption of the Constitution and creation of the Supreme Court, 79 High Court decisions were rendered prior to 1950 and 110 decisions were rendered post-1950. It may be noted that this dataset excludes cases decided by lower courts, such as civil and criminal courts, and tribunals such as the interstate river disputes tribunals and the national green tribunals.

The articulation of the "right to water", both as a legal and a constitutional right in the Indian context, has always included rights to drinking water, along with water for livelihood needs, usually for irrigation of agricultural land. Figure 4 shows the overlapping distribution of categories of claims for 79 High Court cases decided prior to the adoption of the Constitution. Of these 79 decisions, the overwhelming majority of cases (62) involved claims for water for irrigation of agricultural land either as easement rights or rights of upper or lower riparian owners. This is consistent with the colonial state's policy emphasis on building irrigation canals, and the enactment of laws to acquire land and appropriate water for these purposes, as described in Section 4 earlier.

Only seven decisions specifically articulated legal rights to drinking water. This is unsurprising given that no colonial-era statute gave primacy to drinking water rights. In the earliest reported case from the nineteenth century, the Madras High Court noted that "riparian owners are entitled to use and consume the water of the stream for drinking and household purposes, for watering their cattle, for irrigating their land, and for purposes of manufacture, subject to three conditions, namely, (i) that the use is reasonable, (ii) that it is required for their purposes as owners of the land, and (iii) that it does not destroy or render useless or materially diminish or affect the application of the Act by riparian owners below the stream in the exercise either of their natural right or their right of easement if any". Subsequent cases from the twentieth century established rights of access to water in naturally occurring water sources, such as wells or tanks, against both the government [62]

and individual riparian owners [63] who obstructed such access to the detriment of the lower riparian owner, or other inhabitants accessing the water source [64]. During this period, the legal "right to water" included expansive access to water in the context of "drinking and household purposes, for watering their cattle, for irrigating their land, and for purposes of manufacture". In the absence of legislation, however, High Courts did not recognise the rights of inhabitants against pollution of water sources through the discharge of industrial effluents [65].

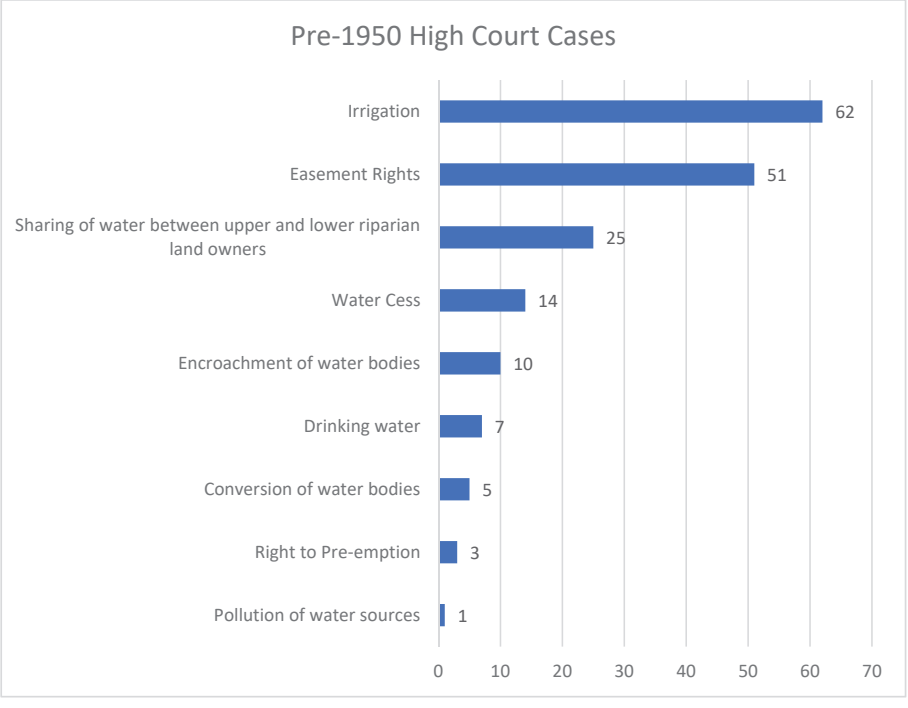


Figure 4. Overlapping distribution of claims decided by High Courts pre-1950.

The situation changes remarkably when we look at the volume of decided Supreme Court cases post-adoption of the Constitution in 1950. Figure 5 shows the overlapping distribution of categories of claims decided by the Supreme Court post the adoption of the Constitution. Of the 59 Supreme Court decisions reviewed, nearly half the cases (25) involved articulation of a fundamental or constitutional right to drinking water, whereas a slightly lesser number of cases (22) involved claims for irrigation.

All of the 25 judicial decisions involving articulations of the "right to drinking water" were rendered post-1980. There are two plausible explanations for this. The first explanation refers to the Supreme Court's activist role in the post-emergency period. Despite having previously invalidated constitutional amendments that contravened fundamental rights [66], the Court's credibility was severely damaged when it ruled that fundamental rights could be suspended during a period of emergency [67]—thereby lending legitimacy to the regime's practice of political repression. In part out of atonement for the failings of the Emergency era, the Supreme Court subsequently adopted an increasingly activist role to "extend legal protection to the interests of the weak and underprivileged sections of society" [68].

The Court liberalised rules of standing [69] to facilitate access to justice for disadvantaged groups, thereby expanding access to legal aid and entertaining petitions that were submitted as letters to the Court [70]. Over the same period, the Court expanded the nature

and scope of fundamental rights through an expansive interpretation of the right to life [71] as the right to live a life with dignity [72], which includes housing [73], education [74], health [75], food [76], and water [77]—thus making social rights justiciable. In so doing, the Court has characterised fundamental rights and Directive Principles of State Policy as complementary, with "neither part being superior to the other" [78].

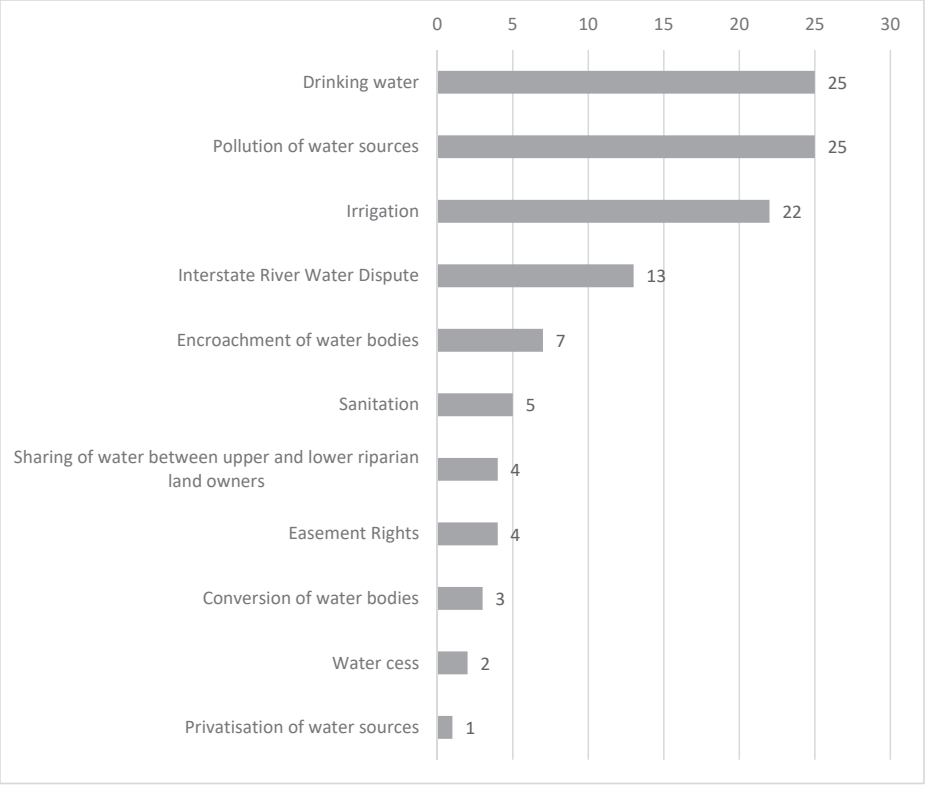


Figure 5. Overlapping distribution of claims decided by the Supreme Court post-1950.

The second explanation lies in the enactment of the Water Act in 1974, the Air Act in 1981, and the EPA in 1986. As India went through an unchecked industrial transformation, these laws provided statutory bases for many of the drinking water claims brought before the Supreme Court. Such claims were either grounded in provisions prohibiting pollution of water resources or conversion of water bodies for industrial or government use. As described earlier, in the absence of such statutory or constitutional basis prior to 1950, High Courts were reluctant to grant relief.

As in the case of the Supreme Court, we see a shift in judicial decisions rendered by the High Court in the post-1950 period. Figure 6 shows the overlapping distribution of categories of claims decided by the Supreme Court post the adoption of the Constitution. Of 110 cases decided by various High Courts post-1950, 41 cases, which is almost a third of total cases, involved drinking water claims, whereas only a slightly higher number, 48 cases, involved claims for irrigation. Contrast this with the fact that there were 62 cases involving irrigation claims, and only 7 cases involving drinking water claims, prior to 1950.

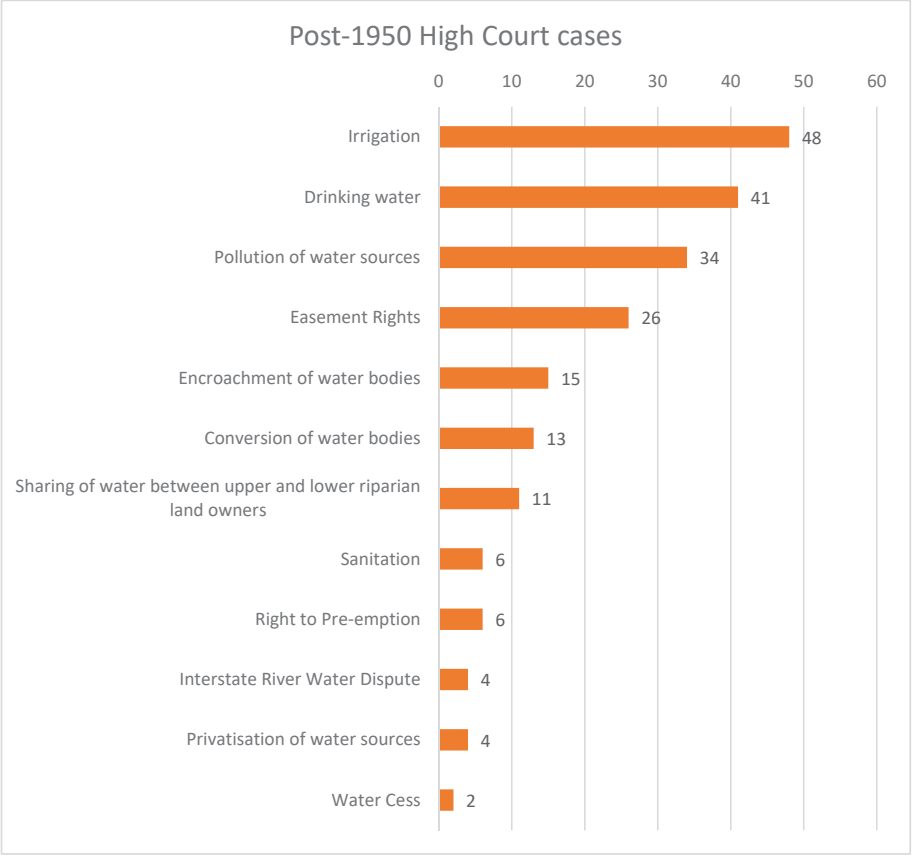


Figure 6. Overlapping distribution of claims decided by High Courts post-1950.

Both Supreme Court and High Court decisions have mostly grounded the right to access clean water for drinking, household, and irrigation purposes in the "fundamental right to life" under Article 21, which includes the right to live with dignity. For instance, the Supreme Court has held that the "fundamental right to life" includes the "right of enjoyment of pollution free water and air for full enjoyment of life" [79]. The Court went on to note that "if anything endangers or impairs the quality of life in derogation of laws, a citizen can approach the Court under Article 32 for removing the pollution of water or air which may be detrimental to the quality of life". In many cases involving water pollution, the Supreme Court has derived the "right to water" as part of the "right to a healthy environment", which in turn has been derived from the "right to life". The Supreme Court has mandated the cleaning up of water sources including rivers [80], the coastline [81], and even tanks [82] and wells. The court has also issued mandatory directions to polluters for restoring soil and ground water post pollution [83]. The court has also applied the "precautionary principle" to prevent the potential pollution of drinking water sources consequent upon the setting up of industries in their vicinity [84].

It must be noted that none of these decisions impose an obligation on part of the government to provide clean drinking water to all the people of India. Instead, they merely impose a duty on the government to ensure that there is no pollution of water sources that are in fact providing, or are likely to provide, water to individuals and groups.

Occasionally, the High Courts and Supreme Court have also grounded the state's obligation to provide clean water in Articles 47 and 51 A of the Constitution. Article 47 of the Constitution imposes a non-judicially enforceable obligation upon the state to "raise the level of nutrition and the standard of living and improvement of public health" of the people of India [85]. Article 51 A (g) of the Constitution imposes a fundamental duty upon Indian citizens to "protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures". In 1997, the Supreme Court also articulated the "public trust" doctrine, which limited the state's sovereign authority to appropriate and regulate all water bodies, and imposed a legal duty on the state to protect all natural resources, including water bodies [86]. A detailed discussion of the "public trust" doctrine is beyond the scope of this paper, but it marks a reversal, *albeit* imperfect, of the state's unchecked appropriation of commonly held natural resources such as land and water that happened through colonial-era laws.

High Court decisions have been somewhat more progressive about the content of the "right to water". Both the Andhra Pradesh and Kerala High Courts have placed an affirmative obligation on the state to provide potable drinking water to the population [87]. Moreover, the Andhra Pradesh High Court has held that the municipal water supply board could not terminate drinking water supply to the owner even if title over the property were in dispute, thereby disassociating the right to water from property ownership [88]. A detailed qualitative examination of judicial decisions articulating the "right to water" in the Indian context shows that this articulation has happened independently of the movements and processes that have influenced the adoption of the "human right to water" in 2010. While there is a rare reference to the 1997 U.N. resolution and other international precedents in some cases, there is almost no reference to the 2010 articulation.

Interestingly, the trajectory of the "right to water" has been somewhat distinct from that of other social and economic rights articulated by the Supreme Court as part of the "right to life". This is perhaps because of the existence of statutes outlining the obligations of state authorities with respect to water resources before the judicial articulation of the fundamental "right to water". This was not the case with respect to the rights to food, health, education, and housing. With respect to some of these rights, judicial articulation of the right was followed by constitutional amendments and the enactment of statutes. For instance, the fundamental right to education under Article 21A of the Constitution (inserted by the 86th constitutional amendment) was the outcome of judicial articulation of the "right to education" under the "right to life" enshrined in Article 21 following a series of judicial pronouncements [89]. The Right of Children to Free and Compulsory Education Act, 2009, was subsequently enacted to provide machinery to enforce the constitutional guarantee under Article 21A.

7. The "Right to Water" for Marginalised Groups

Within the broad articulation of the "right to water" for individuals and communities, there have been two specific articulations of the "right to water" on behalf of *Dalit* and *Adivasi* groups. As described in Section 1, while *Dalits* have been marginalised on account of systematic discrimination within Hindu society, *Adivasis* or indigenous peoples have been marginalised for their pursuit of a way of life outside mainstream Indian society. As mentioned previously, discriminatory practices against *Dalits* often manifested themselves in the form of denial of access to common sources of water such as wells and tanks. Such practices have continued to a significant degree in independent India. *Dalits* have occasionally sought to enforce their rights to access water through criminal prosecutions under the Protection of Civil Rights Act, 1976. Although criminal courts were largely outside the purview of research for this paper, I found five decisions, one Supreme Court case [90], and four High Court cases which involved criminal prosecutions under the Protection of Civil Rights Act, wherein *Dalits*, usually women, who have the highest burden of fetching water in all communities faced discrimination in accessing a common water source or one belonging to an upper caste [91]. Although the human right to

sanitation is outside the scope of this paper, it must be noted that the Supreme Court in a landmark judgment has ordered the eradication of dry latrines and the practice of manual scavenging which disproportionately affected the *Dalit* community, through enforcement of the "Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013" [92]. A total of 95% of manual scavengers in India are *Dalits* or belong to the Scheduled Castes, and face severe social and economic discrimination and exploitation as a result of being forced to pursue their "traditional occupation".

Social movements of Scheduled Tribes or *Adivasi* groups have articulated their rights to "*jal*, *jungle*, *zameen*", literally translated as "water, forest, land". However, within this understanding, land and water rights are not separate, but part of one indivisible ecosystem that is crucial to the preservation of *Adivasis*' "right to life". An *Ekta Parishad* study of social movements making these claims shows that there are extensive and widespread *Adivasi* movements articulating the right to water but they seldom use the courts to enforce their right to water. This is because contrary to the hegemonic understanding of the "right to water", for *Adivasi* groups, water rights are intricately linked to land rights.

Adivasis have faced disproportionate state-sanctioned displacement as a result of the construction of dams and irrigation projects. *Adivasis* constitute only 8.6% of the total population but comprise 40% of the population that has been displaced due to dams and irrigation projects, wildlife parks, and sanctuaries [12]. Such projects have been justified both under statute and enforced by courts for protecting drinking water and irrigation claims of the non-*Adivasi* majority. For instance, in *Narmada Bachao Andolan* v. *Union of India* [93], the Supreme Court justified the construction of "30 major, 135 medium and 3000 small dams" that would displace 320,000 *Adivasis* and other communities that were not covered by the government's rehabilitation and resettlement plans [94] on grounds that the dam was necessary to protect the right to drinking water of millions of Indians under the "right to life" [93]. The Supreme Court has, however, insisted on the state's obligation to provide potable drinking water supply through hand pumps, and wells in rehabilitation sites for displaced *Adivasi* groups in line with its judicial articulation of the "right to water" for the non-*Adivasi* majority [95].

Thus, even though the dignitarian rights discourse underlying the "right to drinking water" may have strengthened the claims of one marginalised group to water, namely, *Dalits*, it has served to further impoverish and marginalise the claims of another marginalised group, namely the *Adivasis*. Although Moyn completely ignores the claims of indigenous people in his critique of the human rights movement, in fact, his critique has greatest salience with respect to marginalisation of indigenous communities not merely in India, but as described in other papers in this special issue, in other parts of the world.

8. Discussion: Revisiting the Articulation of the "Right to Water" in India

The international recognition of the human right to water in 2010 has occurred alongside a fierce attack on the human rights movement. Human Rights critics such as Kennedy [16] and Moyn [17] have argued that human rights create status equality, not distributional equality. Focusing on human rights, therefore, prevents activists from finding other solutions to inequality. They also allow litigious sections of society to manipulate the legal system to their advantage, further exacerbating these distributional failures.

In India, judicial articulation of a "right to water" as a legal right predates the Constitution. In colonial India with a primarily agrarian economy and society, the "right to water" was articulated by litigants through common law and statutory principles pertaining to claims for irrigation, easement rights of access to water by the dominant owner on the servient heritage, and sharing of water between upper and lower riparian owners. This is because British colonial policy on water, as in the case of land and forests, had focused on ensuring greater state control over the resource to maximise revenue generation for the British Crown. Despite extensive powers on part of the state to own, access, regulate, and control water, neither the colonial state nor the independent Indian state asserted or recognised any explicit obligation to provide drinking water to its teeming millions.

The Indian Constitution adopted in 1950 outlined a new social and economic order for Indians emerging from colonial rule, but largely retained the federal distribution of powers regarding the provision of access to water as obtained in colonial times. While the Constitution does not include an express guarantee of a minimum content of the "right to water", following its adoption, we see the judicial articulation of the "right to water" as a fundamental right derived from the justiciable "right to life" under Article 21, and as part of the obligation of the state "to raise the level of nutrition amongst the population" under Article 47, by both the Supreme Court and High Courts. The "right to water" includes rights to drinking water and water needed for livelihood, including for the purposes of irrigation of agricultural land. In India, though drinking water supply claims are more frequent after the adoption of the Constitution than before, the articulation of a "right to water" also frequently includes water for livelihood. Both the Supreme Court and the High Courts have articulated the core content of the "right to water", but High Courts have rendered more progressive decisions regarding the content of this right by, for instance, disassociating the right to water from property ownership.

Beyond the mainstream judicial articulation of the "right to water", we find two different articulations of the "right to water" by marginalised groups in India. The first articulation of the "right to water" is by *Dalits*, who have historically faced discrimination in accessing common sources of water due to the caste system [51]. The burden of this discrimination has been disproportionately borne by *Dalit* women [52]. The *Dalit* articulation of the "right to water" shows that in societies with entrenched discrimination, formal or status equality *does* matter, and may be necessary for securing the rights of marginalised groups, even if not by itself sufficient protection to fully secure these rights in the absence of accompanying legislation and appropriate enforcement.

The second articulation of the "right to water" is by *Adivasis*, for whom the "right to water" is inextricably linked to rights to land and forest. The mainstream articulation of the "right to water" in India has been used to justify the construction of large dams and irrigation canals that have displaced Scheduled Tribes or *Adivasi* groups [94]. Such displacement insofar as it has deprived *Adivasis* of their land and access to sources of water has resulted in further impoverishing and marginalising them. Even though *Adivasis* have a distinct articulation of the "right to water" expressed through extensive social movements [95], this articulation has been given short shrift because it runs counter to the mainstream articulation of the "right to water". Sadly, the concerns of indigenous people have been largely ignored both by the international human rights movement in its articulation of the "human right to water", and its critics.

9. Conclusions

The Indian Constitution does not include an express guarantee of a "right to water" but following its adoption in 1950, both the Supreme Court and the High Courts have judicially articulated the "right to water" as a fundamental right derived from the justiciable "right to life" under Article 21. The "right to water" includes both the rights to drinking water and water needed for livelihood, including for the purposes of irrigation of agricultural land. Through a detailed qualitative examination of judicial decisions articulating the "right to water" in this paper, I have shown that this articulation has happened independently of the movements and processes that have influenced the adoption of the international "human right to water" in 2010. While there is a rare reference to the 1997 U.N. resolution and other international precedents in some cases, there is almost no reference to the 2010 articulation.

It is clear that judicial articulation of the "right to water" in India has not necessarily resulted in the just and equitable provision of easily accessible, clean, and sufficient water to all Indians. It has, however, imposed a growing obligation on the state to provide accessible, available, and good quality water for drinking and irrigation purposes. This is significant because despite water scarcity, and challenges of quality, and inequalities in access to water, the Indian Government did not even have the provision of water as a national policy priority until 1987, and to date does not have a binding legal obligation to provide water to

the people of India. Attempts to create such a binding legal obligation on central and state governments through the National Water Framework Bill, 2016, have not succeeded so far as the bill remains in draft form. The fact that the bill's preamble specifically states that the bill's content is in accordance with the Indian Supreme Court's articulation of the "right to water", only emphasises the importance of the judicial articulation of the "right to water" in shaping the Indian state's obligations to provide water to the people of India.

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water

MDPI

Article

The Right to Water, Law and Municipal Practice: Case Studies from India

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Abstract: Recognition of the right to water in Indian courts has had little impact on the ground. This paper explores the seeming disjuncture between what happens in the court and the everyday reality of living with a less-than-perfect claim on city water services in India's urban slums. The paper seeks to understand and contextualise a court ruling which looks like it declares a right to water for people in urban slums, but in effect gives them little beyond what they already had. The paper also looks at the 'everyday reality' of municipal administration and the provision of drinking water in slums through in-house connections and community taps. In both case studies, the author looks to understand how the practice relates to frameworks of law and policy that shape the rationality and scope of action of the actors concerned, both judges and municipal officials. She found that the issue of land was the main stumbling block in both places, but it was conceptualized a little differently in each situation. These case studies underscore the critical importance of making the local interface between poor people and the state more empowering in order for rights to become local and meaningful.

Keywords: human right to water and sanitation; water access; impact and efficacy of human rights

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1. Introduction

The courts in India have declared the right to water to be a constitutionally recognized right; however, this right has not (except in very rare exceptions) been translated into legislation or state policy. It is very seldom demanded by social movements, except sometimes in rights litigation. It is almost never brought up in the context of drinking water alone but seems instead to be appended to other issues such as environmental pollution, displacement, slum evictions and battles over natural resources. Moreover, in urban contexts, the groups that are underserved and excluded from mainline drinking water services seldom mobilise to invoke this right. Instead, the excluded might make a pragmatic compromise, in which they settle for a less-than-perfect claim of human entitlement for some 'special regimes' that are designed for their unequal status.

In this paper, I will explore the disjuncture between the regime of rights, and the maze of local administration. For this, I looked at two arenas of engagement: one in which the 'right to water' is well recognized, and another in which access is negotiated through a special regime built of law and administrative practice in which there is no explicit recognition of the right to water. Instead, the logic of poverty alleviation and some diffuse notion of human entitlement provide rationality for this special regime which is built on everyday interactions between the poor and the state.

These two arenas show us how the right to water is inextricably tied up with the issue of land. It remains entangled in land, in not entirely dissimilar ways, even as we move between two alternative spheres of rationality: of socio-economic rights jurisprudence and of municipal administration, respectively. Both of these spheres of rationality have their uses and their limitations, and there are usually very persuasive reasons, local and legal, why people might choose to approach the court in some cases and not in others.

Putting together the two cases provides some useful insight into how the discourse of socio-economic rights runs aground in real life situations of deprivation.

My case studies relate to people in urban slums who face some specific types of exclusion from the mainstream urban water supply provisioning. These difficulties seem to be linked directly to their being in slums, and to their legal status in relation to the land that they occupy. The issue of land allows them a very limited type of right to water in the eyes of the court they approached to make a claim for their right to water. The problem of land and the status of excluded communities in relation to land is the main issue even in the arena of municipal administration; however, a different framework of rules allows for the possibility of some kinds of legitimacy, and with fewer attendant risks.

The issue of land in relation to slums and water supply is not simply one of squatting or illegal capture of land, although there may be elements of that in many slums. Slums tend to contravene some aspect of the writ of the state with respect to property and planning control, but they could equally have some recognition from the state of their tenure claims and planning status. Concomitantly, the drinking water problem in slums also has some specific dimensions.

The difference in access to piped water supply (as opposed to that from local borewells or tankers) is not immense: it is estimated that 51 percent of slum households rely on piped water as their main source of water, as compared to 57 percent in non-slum areas [1]. However, slum households are far more likely than non-slum households to have community taps or shared water connections as their source of piped water, and to have to rely on shared borewells and tankers where piped water is not available. In comparison, the off-network non-slum areas are more likely to have in-house water connections, or to have their own borewells and private arrangements. Slum households are also more likely to access supplies that are less reliable, available for less time and at lower pressure than in non-slum households [2–4].

The rules of water service provision are seldom the same for slum and non-slum settlements. This differential set of administrative procedures and protocols for water supply in slums accounts for the land status of slums. In my first case, a new set of rules directed municipalities to cut off previously legal connections from a specified category of slums. In my second case, I explore a 'special regime' that provides them water, but of a lower grade than what is supplied in non-slum areas.

In both cases, it is pertinent that people in slums have a background threat of evictions, disconnections and shut-downs because of how they are located in terms of the rules of property titling, building plan approval, trade licensing and myriad other forms of state control. People in slumsare mindful of these background threats in their negotiations with the state. To 'live in the face of the tiger' [5] requires careful collective strategizing on the part of the slum residents.

The issue of drinking water in slums is also one of engineering failures: of plans that overlooked resident populations in the slums or failed to provide for them, of inadequate maintenance or of the practice of diverting water elsewhere when there is scarcity in the system. These engineering failures could be considered 'hydraulic' water problems, as opposed to 'legal' water problems [6]. But hydraulic problems might themselves originate in the unrecognized planning status of the slum, and how this is understood in the domain of municipal engineering.

Another dimension of the water problem in slums is the apparent need for slum residents to politically organize themselves in order to get the municipality to act. There is quite a lot of ambiguity in the rules and in how (and perhaps to what extent) these rules can be applied to idiosyncratic municipal water supply lines, which leaves room for local inconsistencies. Settlements that are quite securely placed in legal terms might also struggle with inadequate access to drinking water, whereas places that have very little by way of legal status might be able to secure some form of municipal drinking water. The extent to which residents can organize themselves and make connections with political networks seems extremely relevant to how much of the municipal services and state welfare

are available to them [2,7,8]. However, this does not make the rules irrelevant. Rather, the formal rules of inclusion and access provide the terrain that is navigated through collective positioning.

2. Materials and Methods

The material relating to the two situations described in the case studies were drawn from a variety of sources. In the first case study, I focused on one court ruling and looked at the related legal rules that constituted the 'cause of action' as well as what emerged as an outcome of the ruling. I looked at related social science literature and news articles to provide context to the situation. I also referred to selected pieces of policy literature, discussions and opinion pieces where relevant for key themes of interest in the case study.

The objective of my second case study was to build an understanding of the situation. This situation is specific to place and time in some ways, although its key features could be applied more broadly to drinking water issues in India's urban slums. I have used the case of Madhya Pradesh cities. My case deals with local law, institutional arrangements and administrative practice. Much of this relates to the municipality; however, it is determined at the state level. There are some city-specific variations and size-category variations. Of these, the size category variations seemed to be specific to my case study, and, therefore, I have restricted my focus to the larger cities in the state with a population of more than one million.

For the second case, I have drawn on my consultant work. I worked from 2006–2009 in a poverty alleviation programme funded by Britain's international aid agency (then known as the Department for International Development, or DFID) in the state of Madhya Pradesh where I helped coordinate the implementation of water supply and other services improvements in urban slums in the state. In this time, I worked closely with a team of municipal officials and consultant colleagues to plan and implement a scheme to deliver household water connections to the poorest and most infrastructure-deprived areas of the cities in which the programme was applied. My own location at the time in Madhya Pradesh provided a vantage point from which to understand the local interface of the state with the cities' poorest residents. I remained engaged with further developments in the state's urban policies through subsequent donor-funded assignments. I have drawn on my own notes and subsequent discussions I had with municipal and urban administration staff in the state of Madhya Pradesh. The people I have spoken to are, however, not named, as most of our conversations were conducted with this understanding. I have cross-checked what I learned from my discussions by referring to alternative sources, application forms, website links and news reports.

From the time I have been keeping up with this case, there have been several programmatic changes in Indian urban policy. Many of these have come in the form of central government-funded schemes for the development of public infrastructure and housing, with related policy goals and scheme conditions. Programme targets under these schemes might have the effect of speeding up budgetary allocations, tenure grants and approvals from time to time. Election cycles in state and municipal elections might also have similar effects. However, it is my understanding that they have not significantly altered the framework of rules and rationality that I have dealt with in my case study. For this reason, I have chosen to keep them out of the present narrative.

3. The Struggle for Municipal Drinking Water, in Courts and in Municipal Administration

3.1. Judicial Recognition of the Right to Water

My first case is of Pani Haq Samiti [9], which is perhaps the only Indian court case in which the principal point is of the constitutional right to water in urban slums. In 2012, the petitioners—a Mumbai NGO—challenged a government rule that barred the Mumbai Municipal Corporation from providing water to houses in slums which could not show evidence of having been in existence from before a stipulated "cut off date". By state law applicable to slums in Mumbai, slum residents who showed evidence of

their presence before 1 January 1995 were eligible for the issue of a "photo pass", and were considered "protected occupiers", by which they were protected from eviction except by way of a relocation and rehabilitation scheme formulated by the government. (In the Maharashtra Slum Areas (Improvement and Clearance) Act, 1971, this provision was added by amendment in 2002). By this measure, 1 January 1995 came to be considered the cut-off date, which was subsequently extended to 1 January 2000.

This policy created a category of slum housing which was ineligible for rehabilitation, and came to be referred to as "illegal structures". Subsequently, a government circular issued on 4 March 1996 directed local authorities to ensure that water supply is not released to any unauthorised constructions. Rules formulated by the municipal corporation of Mumbai also provided for water supply only to protected occupiers. This implied that the corporation had to shut off supply to "illegal structures", even those that previously had entirely legitimate water connections to the city water supply network.

This rule was successfully challenged by Pani Haq Samiti on the ground that it was violative of Article 21, or the constitutional right to life. In their decree, the judges relied on previous judgements for an expansive interpretation of the right to life as including the right to food, water, shelter, decent environment, livelihoods, medical care, facilities for reading, etc. The petitioners had also referred to the international human right to water and the International Covenant on Economic, Social and Cultural Rights, which this court (relying on previous judgements) used to support its expansion of Article 21.

However, the court clarified that the right to shelter guaranteed under Article 21 did not extend to protecting possession of illegal and unauthorised housing. Therefore, even though the state or the municipal corporation could not deny water supply to a person on the ground that he is residing in an illegal structure, the person had no right to retain the illegally constructed structure. Elaborating on this, the judges said that they were sympathetic to the fact that there was a lack of affordable housing in the city that was resulting in the proliferation of illegal housing, but, nonetheless, they observed that it was the duty of the municipal corporation to demolish illegal housing. In their final directions in this case, they reiterated this, and gave specific directions to the municipality to report back to the court about actions taken towards this end.

The court also held that people living in illegal slums could be made to pay higher rates for water supply than others for the reason that "a citizen who stays in an illegal structure on in illegal slums cannot claim [the] right to get water supply on par with water supply made available to a law abiding citizen who has either constructed his house after obtaining a permission or who is occupying a residential premises which is lawfully constructed and which is permitted to be occupied". It held that it was for the municipal authority to decide in what manner water could be supplied to illegally constructed slums, and to evolve a policy for it, which need not be in the form of piped water to individual dwellings. This policy could include a provision of payment of water charges, which could be at a higher rate than the rate that is charged for water supply to authorised constructions.

Apparently (as noted in the court's decree), the petitioners had suggested that the municipality could supply water through water booths and prepaid cards, which the court held was an option that could be considered. Further, the court held that its ruling in this case did not apply if there was a specific prohibition on supply of water in any particular area by another ruling of the court. The municipal corporation was directed to formulate a policy for water supply to illegal slums on these lines, and to report back with an affidavit of compliance within 10 weeks of the order.

Subsequent news reports suggest that a 'Water for All' policy was finally approved in 2016 (almost two years after the date of the High Court order), which provided for household water connections to the illegal slums. In terms of this policy, water charges in illegal slums were higher than what was applicable for slums from before the cut-off date [10]. I could not find a copy of the actual policy, however, its existence was confirmed in my phone conversation with Sitaram Shehlar, the convenor of the Pani Haq Samiti NGO on 5 February 2020. This policy required that the municipal corporation obtain clearances

from several other agencies in order for water connections to be provided in many of the locations and for households that were previously barred. In practice, this means that slum residents themselves have to organise and lobby for all the clearances from other agencies, and whether or not the approval is at all forthcoming might depend on the status and classification of the land on which the slum is located.

Confusingly, the municipal website makes no mention of this policy but instead states that: 'It is our commitment to provide access to water to all the citizens of Mumbai and we recognize that a large part of our community is living in the informal settlements. Water services are provided to these informal settlements in the form of a common connection in General Washing Place (GWP) for a group of minimum 5 households. *The citizens in slums having proof of existence prior to 01.01.2000 are eligible for water connection as per present policy.*' [11]. This is, in effect, the legal position from before the Pani Haq Samiti ruling, and suggests that there has been little impact of what the court said on the municipal corporation. By recent estimates, 2 million people are denied legal water access in the city of Mumbai and live amidst severe water insecurity. Moreover, 70 percent of these people are still being denied water on account of the original "cut-off date" of 1 January 1995 [12].

On the other hand, the Pani Haq Samiti court did not make any directions about establishing a regular and reliable service, it did not stipulate quantity or quality and it did not seek a commitment as to when it would be implemented. On costs, the court seemed to think that a higher tariff, and even a tariff with a punitive element, was acceptable. Moreover, the fact that the government policy made as a result of this judgment imposes very difficult conditions for residents of illegal slums is not a violation of the principles established in this case.

I understand that there were no slum evictions that could be linked to the court's directions to demolish 'illegal housing' in this case, in spite of what the court said about it, which is perhaps a reflection of the agility with which local authorities can negotiate around court diktat. However, leaving aside for a moment the local authorities' adroit management of the demolitions issue, it would be useful to reflect on the reason why the right to water court's formulation of the right to water is so measly in that it does not even entitle people to a basic standard of regular and reliable provision? For this we could look at the background of the government policy that was challenged in this case. The particularities of this policy are local, but this background is useful in thinking about why the right to water fails those for whom it is most needed.

The Mumbai policy that linked eligibility for water connections to a stipulated 'cut-off date' was closely connected with slum development policy (and the 'slum development scheme') of 1995 that was notified under the Maharashtra Slum Areas (Improvement and Clearance) Act, 1971. The 'cut-off date' referred to in the Pani Haq Samiti case was really the cut-off date for eligibility under the slum policy. By this policy, real estate developers could construct slum redevelopments and new housing projects for people in slums. In exchange, a part of the land on which the slum was located was to be freed up by reorganising the slum into multi-storey housing, which the developer could use as commercial real estate. In addition, developers were given transferable FAR (floor-area ratio rights) or 'transferable development rights,' which could be used elsewhere or sold in the market to other construction projects.

Mumbai's slum redevelopment policy suited both politicians and technocrats, as it seemed to provide a solution to the city's problem of unaffordable real estate and constrained supply of housing. Moreover, this solution seemed to consist only of policy and financing innovations, and was thought not to impose any financial burden on the government, while giving slum households a highly subsidised house with secure tenure. At the same time, it could release large amounts of land for real estate development. All in all, a win-win in the recently liberalised Indian economy of the 1990s, as evidenced by the fact that the policy was smoothly incorporated into the corporate vision of Mumbai and energetically supported by international aid agencies [13,14].

However, the dark side of this policy was that it needed a cut-off date for its legitimacy [6]. Local critics feared it would attract free-riders and lead to the creation of new slums, and Indian bureaucrats have a marked preference for finite solutions and one-time handouts for people in slums. The cut-off date and the water disconnections also perhaps helped the political sponsors of this policy build nativist support by differentiating between earlier settlers (presumably from the same state) and later arrivals who came from further away (the northern states of India, and possibly Bangladesh) [4,8]. The linking of municipal water supply to the cut-off date was, in this context, an additional step to reassure critics that conditions in the non-eligible slums were not being made too attractive. Its main purpose seems to be to endorse the logic that slums from before the cut-off date were entitled to remain and be rehabilitated, whereas the ones that came after were illegal and should be removed.

On the other hand, it is unlikely that the policy linking water supply to the cut-off date is the result of a water privatisation agenda, even though it happened at the time when privatisation of Mumbai's water supply was on the table. The idea of reorganising water supply services in Mumbai along commercial principles was in circulation in government and policy circles in the period of the 1990s and early 2000s. At this time, the World Bank strongly promoted the idea of greater cost recovery in water services through metering and tariff increases [15]. However, 'in the end the privatisation storm blew over,' and it is likely that it was never a real possibility given the many complex and knotty problems that any real restructuring effort would have had to resolve [6].

However, the main reason why I think the two are not connected is that the policy to link water services to the cut-off date brought about the illegalisation of large numbers of water connections and supply points that were formerly legal. This drove a large part of Mumbai's water operations underground and took it off the balance sheets of the municipal corporation. Had it been legal, it would have been easier to account for, and would have generated some amount of water supply revenue, even if it was not profitable. In her study of water in Mumbai which covers this period, Bjorkman also found no direct connection between the World Bank's policy advocacy work and the water disconnection policy, although she found that the government's water supply scheme which was inspired by this advocacy work contained a proposal for a distinct type of pre-paid water connection in the post cut-off date slums [6].

Coming back to Pani Haq Samiti, the three prominent features in the case—punitive tariff, limited services and making this subject to land approvals—are all linked to the logic of the cut-off date, and the idea that post-cut-off date households have a lower claim on the system. This, I believe, is just one instance of many across India's drinking water regimes, in which elite ways of thinking about land as property override the legal conception of the right to water.

3.2. Municipal Drinking Water in Administrative Rule and Practice

In many discussions about the issue of drinking water in the slum areas in Madhya Pradesh cities that I have had in the period of 2006–2018, I learned that the quality of drinking water provision is indeed closely tied to the issue of land, but that this connection is a bit more complicated than it would appear to be in Pani Haq Samiti.

Access to drinking water in slums seems to be of poorer water quality, of less quantity and far less secure than that of people in non-slum areas, which has health, economic and quality of life implications for them. And yet, there is hardly any right to water mobilisation in the courts, or in popular discourse, considering the scale and widespread nature of the problem.

People living in Indian slums might have a slightly better actual legal position in relation to municipal water than in the Pani Haq Samiti judgement. This is because there are other sources of rule, procedure and administrative practice, in which a slum settlement (and a household within a settlement) can be recognised. However, slum residents are in a lower position as compared to the 'law abiding citizens' in non-poor housing colonies

even in local rule and practice. As in the court, this distinction is built around property and planning regulations.

The administrative rules and practice that I refer to draw on municipal and planning legislation, land revenue codes and the service conditions and service rules that are applicable to people in government employment. Rules and practice also draw on engineering codes, standards and norms, and on administrative circulars and directions that officials receive from higher levels of the government hierarchy. This gives the rules and practice a type of immutable rationality, which can be quite resistant to high-level changes such as in judicial discourse.

On the other hand, the rules and practice belong to the 'street-level bureaucracy' of the municipality, who interact with citizens in the course of the job and have discretion, but cannot do the job according to ideal conceptions of the practice because of the limitations of the work structure [16]. Any spending of government money must be 'sanctioned' or approved, but officials have some room for manoeuvre in deciding which case to put up on the file and how to formulate the case. Moreover, the piped water supply network is not entirely bound by a framework of rules. It is not fully mapped or documented, and is full of ad hoc extensions and modifications, which allow plenty of room for local agency.

In part, this situation is sustained by the fact that water supply revenues do not feature very high in a municipal officials' list of priorities. In fact, they are far less concerned about it than the Pani Haq Samiti judges. Tariffs are low overall, and no Indian city raises enough money from water tariffs to cover the cost of its water supply operations, in spite of several decades of policy pressure to do so. National government schemes and multilateral programmes call for improvements in the accounting and revenue efficiency of water supply operations as a 'reform' condition for funding disbursements; however, these conditions remain widely unfulfilled.

The actions of municipal officials also need to be understood in the context of the fact that the municipality is political, by which I mean that the mayor and the elected council who have considerable power and influence over what the municipality does, are not as invested in administrative rules as career civil servants. The councilors and officials themselves are often local residents of the city, and not so high in social status—and are therefore often easily approached by groups for poor people to intercede on their behalf to resolve water supply issues. There were commonplace instances of municipal councilors and officials being 'encircled' by local residents—sometimes groups of women—when they were out on a site visit, and being held in some sort of friendly custody until they would agree to address some pressing local issue.

It is easy to see how this administrative context facilitates illegal water connections, however, illegal connections can only reach as far as there is municipal drinking water supply. Illegal connections also cannot quite bridge the gap between slums and the rest of the city, which remains stark in spite of whatever marginal additions are brought about through illegal extensions.

3.3. Within City Disparities

In the data, drinking water provision in India is categorized as within premises supply (i.e., in-house), and supply from shared community sources. This latter category includes community taps and tankers, and sometimes large plastic storage tanks, fitted with a tap, which are filled intermittently through municipal supply lines or tankers and serve as a type of community tap. Community taps and neighbourhood level supplies could also be arranged through local borewells—some of which are municipal owned—which supply untreated water directly from the borewell. Municipalities also provide a *survival essential* tanker service in areas where there is not enough piped water supply or community taps.

In the official-speak of Madhya Pradesh municipal officials, community taps are provided in areas where it is not possible to provide regular in-house connections for legal or infrastructural reasons, and community taps are meant to be removed from an area once in-house connections are provided. Community taps are provided free-of-cost

by the municipality, and mostly only in poor neighbourhoods. New peri-urban gated communities and residential developments that fall outside of existing municipal supply networks are more likely to have private borewells or a private tanker supply.

In the last (albeit not particularly recent) national survey focusing on services deficiencies in slums [1], it was reported that around 80 percent of slum households in the larger cities in Madhya Pradesh (i.e., cities with a population of more than one million) were dependent on community taps for their main source of drinking water, whereas another 20 percent depended on taps shared with neighbours. The number of houses that reported having an exclusive, in-house taps in slums was negligible on the whole. In comparison, in non-slum areas in the same city, 24 percent depended on community taps, 40 percent shared taps or sources of water with their neighbours and 36 percent had exclusive water connections. These community arrangements included both public stand-posts which provide piped water supply and other ground water sources such as wells, tube-wells and boreholes. Moreover, 46 percent of slum households walked more than 200 metres to have access to drinking water.

These numbers suggest that the difference between slum and non-slum areas is not absolute—there is substantial water related difficulty outside of slum areas as well; however, the slum areas look considerably worse. Besides, with more money and space, households without exclusive or municipal water outside of the slums might have a better capacity to cope through alternative means (such as through private borewells, on-site reservoirs and overhead storage tanks). There might have been some improvements in the period since this survey, although I could not find any official reports of transformative change in policy or outcome.

3.4. The Administrative Framework for Recognising Slums

While census and survey operations tend to recognize and count slums by what they are in physical terms, in order to be provided with municipal services an informal settlement seems to need some form of administrative recognition. For this, the Madhya Pradesh municipalities use their powers under a slum clearance law [17], which gives the municipality power to remove or undertake improvements in settlements that are 'notified' by it as slums.

By legal definition, a slum is an area that is "a source of danger to the health, safety and convenience of the public of that area or its neighbourhood, by reason of the area having inadequate or no basic amenities, or being insanitary, squalid, overcrowded or otherwise" [17]. This definition does not say anything about whether or not it is a squatter settlement, and whether the residents can claim to 'own' the property they live in. The definition also does not say anything about zoning and building regulations.

In administrative practice and social welfare policy, however, a slum is a conflation of tenurial and zoning irregularities and the fact of its residents being recognized as poor in state welfare programming. Slums are notified in order for them to become eligible for municipal infrastructure and engineering, and in order for them to become sites of welfare and community development programmes of the state. The municipality has a separate department to deal with slums, and a specialized staff of community officers to undertake planning and social development activities in slums.

By these measures, slums can be improved in terms of living conditions and socio-economic prospects for their residents; however, the tenure and planning irregularities, and the physical constraints of congested housing in unsuitable places, can never be fully overcome. The steps to government recognition, and towards securing claims to land and basic services, have been described as the incremental buildup of tenure security. This 'incremental' approach is widely considered a pragmatic and durable strategy for dealing with urban poverty [18,19]. However, it does not lead to a route to the very top. Moreover, the steps require some proactive mobilization of local officialdom and politicians by the community.

The process of slum notification is one such step. By administrative norm, municipal officials say permanent infrastructure and improvements cannot be made in slums before they are notified, although I could not find a legal provision that barred public engineering expenditures in slums if they are not notified. However, it would seem as if the notification of a slum brings it administratively under the purview of the municipality, whereas non-notified slums are not.

The notification process is time-consuming, and it involves technical, administrative and political layers; as a result of which there is usually a queue of 'non-notified slums' that have been identified as slums but have not as yet completed the process of notification. In practice, my colleagues and I usually found small municipal investments, such as in community taps and drainage even in non-notified slums, however, these were usually explained away by officials as 'councilor fund projects' and of a lower order of magnitude than systematic area improvement projects. For a ward councilor, having slums in his or her ward notified is a high priority—and it sometimes slows down the notification process as officials develop a 'balanced' list that covers slums distributed across the city and in as many municipal wards as possible.

The notification process is distinct from, but not entirely unrelated to, the issue of property and tenure claims. Notification could pave the way for municipal infrastructure spending, which in turn could perhaps signal some intent on the part of the municipality to let the slum remain on the site it occupies. However, residents need to build up their property claims in parallel.

Property claims are built up in parallel with documentation that establishes evidence of the household's occupying a site over a period of time. For slums that occupy public land, documentary evidence of site occupation can make a household eligible for a 'patta,' which is a type of temporary property right granted by the state government in slums under a special state law [20]. Pattas are the closest that slum residents can come to ratification of their property claim under applicable law in Madhya Pradesh. The status of patta is awarded on the basis of a survey by the state government (which is the residual owner of all public land in the state). Eligibility is determined on the basis of official identity papers that show residence at the site for a minimum of three years. Testimonies of neighbours are also sometimes considered in lieu of documentary evidence. However, a patta granted under this law can be cancelled at any time by the state government, with a somewhat uncertain right to compensation or alternative accommodation. Nevertheless, this form of tenure is considered heritable and of some value to those who manage to secure it.

At the time of award of patta, the municipality and the state planning agencies are asked for a 'no objection' certificate, which is thought of as a way to rule out patta grants in areas of glaring legal or practical problems. Slums that are on private land, or on land owned by government institutions (such as the railways, the military and public sector companies), are not considered eligible for grant of patta, perhaps for the reason that the 'no objection' certificate would not be forthcoming from the agencies that own the land. Slums on private land (in illegal occupation) may also not be considered for this reason. In theory, slums that are on sites that are unsafe for habitation are also not to be granted patta, however, there seems to be many exceptions to this rule.

There is also another category of slum-like informal settlement, called the "illegal colony" built on farmlands that are sub-divided, sold and bought without planning permission under land revenue, planning and municipal law [21–23]. Illegal colonies also serve low-income housing markets, and could be slum-like in many ways, although legally and administratively they are treated as a separate category. Madhya Pradesh law prohibits registration of sales in illegal colonies, perhaps as a disincentive to potential illegal developers, but this means that 'owners' in these settlements have no documentary evidence of their title. Illegal colonies need a specific type of municipal 'no objection certificate' in order to be considered eligible for services [23], which in turn requires residents to organize themselves to jointly apply and lobby the administration for this certificate.

Another type of documentation, related to tenure, that slum households have to navigate is the 'property tax registration.' Property tax is generally thought of as a form of municipal revenue, but, in fact, the property tax levy in Madhya Pradesh slums is nominal. The levy of property tax is calculated based on 'rentable value,' but it is considered to be zero in areas designated by the corporation to be slums and low-income settlements. Houses with zero tax levy are only required to pay a small annual sanitation cess). In formal law, property tax registration is considered unrelated to title: by municipal law, owners or 'occupiers' are permitted to apply, and a tax registration is not considered a document of title. However, in practice, it is recognized by the municipality as a way of establishing a connection between the applicant and the property in lieu of regular ownership documents.

The application process for municipal property tax registration requires the applicant's personal government-issued identity documentation and evidence of ownership or occupation of the property, which could include electricity bills or patta documentation. A municipal official told me that if an applicant is unable to provide any evidence document for his occupation of the property, it is still possible for the municipality to establish his status by making a site visit and recording statements of neighbours.

3.5. Drinking Water Rationality in Legal and Technical Terms

The municipal law of Madhya Pradesh lists water supply as a function of the corporation, stating that "The Corporation shall make adequate provision, by any means or measures which it may lawfully use or take, for each of the following matters (. . .)" which includes "the management and maintenance of all municipal water works and construction and maintenance of new work and means for providing a sufficient supply of suitable water for public and private purposes" [23]. In the same section, however, it is also stated that "No suit for damages or for specific performance shall be maintainable against the Corporation or any officer or Councillor thereof, on the ground that any of the duties specified in sub-section(1) have not been performed" [23].

By this law, the municipality has a mandate to provide drinking water in areas under its jurisdiction, and all the power and authority necessary to undertake this mandate; however, it does not cast an obligation to make adequate provision for water and sanitation services to all houses within its jurisdiction. This is, of course, the exact opposite of how this provision was interpreted by the courts in some of the other cases relating to municipal provisioning, where it was held that local authorities and state governments had a duty to make provision for drinking water, and that the lack of funds and resources did not absolve them of their responsibilities [24,25].

Nevertheless, in the municipality's own understanding of its legal obligation, water supply and sanitation services, and household-level formal services (that is, in-house piped water connections), are provided only if infrastructure and resources are available, and certain other legal conditions are satisfied, and if it is 'technically feasible' to do so. The others, who do not meet technical or legal conditions, may still be supplied with municipal water, but in ways that are not as secure or reliable.

In order to obtain an in-house water connection, the owner-occupant of the house is required to make an application to the municipality, in prescribed format and with supporting documentation. The municipality levies a connection charge for new accounts, and bills a monthly charge to user households. There are concessional connection charges and monthly charges applicable for the low-income households that are updated from time to time. These charges are nominal for slum households, and are unlikely to be the principal reason why far fewer of them have house connections as compared to those in non-slum areas. There is a special category of water rates for a low-diameter connection for 'economically weaker sections' and slums, which provides less water and is billed at a lower rate, and also has a lower upfront connection charge. This could be as low as a monthly charge of Rs. 30 (USD 0.50), as compared to a regular monthly tariff of Rs. 180 (USD 3.00) for regular domestic consumers. As water is supplied only for a few hours every day, the larger diameter regular connection allows for more consumption.

A successful application from a slum household would require the following three pre-requisites: (1) the household should be able to provide supporting documentation, (2) there should be no specific legal prohibition in a particular area, such as if it is on railway or military land, in an illegal colony that does not have a no-objection certificate, or a slum that is not notified and (3) that it should be 'technically feasible' to serve the area, and that it should be within reach of existing municipal pipelines. The households themselves can do little to alter any legal prohibitions applicable to them, and they have limited influence on the technical feasibility question. But they could proactively address the first requirement by lobbying the local administration to bring about slum notification and to improve their household-level documentary status.

It is, however, not always clear what supporting documentation will be considered adequate. In my conversations with municipal officials, I have been told multiple versions of this. There are differing views on whether or not patta documents and property tax registration are essential. Municipal officials have sometimes told me that long-standing residents in areas that are ineligible for patta (such as on certain types of no-man's land) can be considered equivalent to leasehold owners—a view which is unlikely to stand legal scrutiny, but is perhaps adequate for municipal approval. I can only surmise from these varying accounts that, one, political sponsorship helps an applicant's case, and two, that documents are considered *in combination*, and should add up to a satisfactory statement of the applicant's residential status.

In addition, applicants are asked to provide a plumbing drawing prepared by a licensed plumber, and a statement of endorsement from the local ward councillor. Following submission of the application and documents, the municipal engineer makes a site visit report to check if the house location is within reasonable distance from the main line and whether it is technically feasible to extend a house connection from the main line. This site report (the 'technical feasibility assessment'), along with application documents, is submitted to a zonal executive committee for administrative sanction.

Slums might fail the technical feasibility assessment for the reason that they are built on marginal and inaccessible lands, on rocky, hilly slopes or in far flung areas that are not served by existing municipal networks. These would appear, on the face of it, to be legitimate engineering-related grounds for not being able to sanction house connections. However, in technical feasibility, one must therefore account for disciplinary and training bias. In many conversations with municipal engineers on this point, I learned of the difficulty of planning for and laying pipelines and infrastructure in narrow, congested and twisty layouts. In my consulting assignment in Madhya Pradesh, I observed that it was possible to do this with specialized training and method. The municipal engineers I spoke to, however, had not received such training, except as one-off short-term inputs from programmes such as the one I was working in, even though the same narrow, congested and twisty layouts were part of the everyday reality of the cities they worked in. I also observed (a point confirmed by colleagues in the municipality and in my programme) that, in reality, municipal water supply systems are severely compromised on many engineering parameters by poor design, investment and maintenance. This is not just on account of the slums, but everywhere in the city. Therefore, while it appears as if the decision of technical feasibility is based on engineering conventions, these conventions are deployed sometimes and ignored at other times. Technical feasibility is also not a permanent state, but one that can be altered with targeted investments once an administrative decision to serve an area is taken.

The main question for public officials—at least in terms of procedure—seems to be to ensure that there is enough documentary basis in order for them to sign off on it. There is also an implicit concern of public officials—often stated in one-to-one discussions but rarely in writing—that, if the living conditions in slums are made too comfortable, will it not lead to a proliferation of more slums? Officials who approve expenditure in slums are also perhaps driven by the worry that they should not be seen to be as facilitating land capture or serving interest groups. The maze of documentation, including surveys,

assessments, government identity papers and no-objection certificates provide ratifications of the legal status of slums, and perhaps some form of legitimacy and 'cover' for the decision-making officials.

4. Conclusions

My paper explores the seeming disjuncture between the socio-economic rights discourse of the courts and the everyday realities of local law and practice. There is not much difference in the end in what these two options offer for people. The local route is less risky in terms of a threat of eviction, but as unlikely to provide an outcome if the goal is to have a secure and exclusive house connection. Improvements in the quality, reliability and nearness of community taps seems like a more realistic goal, and one that can be achieved by building up official recognition of the slum and tenurial claims of its residents.

Poor people's lower claims on city water services are, however, not likely to be the outcome of their lesser capacity to pay for services. One of the key concerns about water privatization and 'neoliberal' reform of the state, all over the world, is that an increase in commercial orientation of water utilities will lead to higher tariffs, and increased inequalities and exclusion of those who cannot pay these tariffs. This threat has been largely unrealized in India, at least insofar as urban water supply is concerned. Public–private partnerships (PPPs) in urban drinking water are, at least for now, few and far between in India: according to a study commissioned by the World Bank, only 15 PPP projects in urban water supply were awarded between 2006–2011, all with low commercial risk for the private parties, and, of these, only 8 achieved financial closure [26]. Indian government officials, national and state, and in the city municipalities, all profess interest in institutional reforms to reorganize water supply operations on commercial lines. However, in fact, the municipalities and other service providing agencies have not reached very far in implementing this vision. In Mumbai, the disconnection policy perhaps resulted in large number of consumers paying quite a lot for illegal connections, while at the same time shrinking the revenue base of the municipality. The policies I looked at in Madhya Pradesh are not quite so counterproductive, but seem not to be driven by a revenue motive.

The lack of a decent level of water access in slums is also not entirely a weak state problem. Services are poor all over Indian cities, but they, specifically, are worse in certain areas than in others. The real issue, and the one for rights jurisprudence to confront, is about contested claims over land. Formal markets of land and housing give primacy to certain types of capital and interest groups over others, and the insistence on certain types of legalism over others aligns well with these interests. Looking at it from this perspective, we can see why policies in Mumbai (India's financial capital, with some of the highest real estate values in the world) are so different from those in smaller provincial cities in Madhya Pradesh. In both places, however, the municipal arena, chaotic and low profile as it is, provides some space to negotiate these interests in ways that are not possible in the court. This space is precarious, as the municipalities are by no means insulated from land contestations, although their close-to-the-ground location makes it difficult for them to entirely ignore people's voices.

In the end, what should we make of these case studies in the discourse of rights? They underscore the importance of working on developing a better and more holistic understanding of the right to water. The recognition of rights should not be accompanied by the threat of evictions, but rather by the recognition of multiple and social purposes of urban land. My case studies also highlight the need for rights to become local, and to think of ways to make the local interface of poor people and the state more empowering. In this, we need to engage with the legal framework, and rule and policy for water provisioning to develop better footholds for people in excluded settlements to make their claims. We also need to be able to listen to people in excluded settlements to understand what difficulties they face and how the discourse of rights can be deployed and reshaped to address these difficulties.

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Article

Between Confrontation and Cooperation: Right to Water Advocacy in the Courts, on the Streets, and at the Capitols in the United States

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Abstract: Communities across the United States face a widespread water crisis including risks of contamination, rate increases, shut-offs for non-payment, and dilapidating infrastructure. Against this background, a right to water movement has emerged which has found its strength in coalition-building and collectivity. Activists demand change using the framing of "water is a human right", socially constructing the right to water from below. Based on more than 25 semi-structured interviews with water advocates and activists, our article explores how movement participants used the human rights framework to advocate for clean and affordable water for all. We used political opportunity theory and conceptions of government "openness" and "closedness" to examine when and how advocates decided to use confrontational and cooperative approaches. We identified a push and pull of different strategies in three key spaces: in the courts, on the streets, and at the Capitols. Advocates used adversarial approaches including protests and civil disobedience, reliance on human rights mechanisms, and to a more limited extent litigation simultaneously with cooperative approaches such as engaging with legislators and the development of concrete proposals and plans for ensuring water affordability. This adaptiveness, persistence, and ability to identify opportunities likely explains the movement's initial successes in addressing the water crisis.

Keywords: right to water; advocacy; activism; social movement; socio-economic rights; United States; political opportunity; coalition-building; collective action; human rights from below

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1. Introduction

Communities across the United States face risks of water contamination, rate increases, shut-offs, and dilapidating infrastructure—resulting in a widespread water crisis. In 2015, 77 million residents relied on water that was in violation of the Safe Drinking Water Act [1]. Ten million U.S. homes face a threat of lead contamination in the pipes [2] (p. 14). Despite unsafe water and inadequate service, a recent analysis of 12 cities showed an average increase of 80% for combined water and sewerage rates from 2010 to 2018 [3]. When residents cannot afford to pay, many face disconnections [2] (p. 13), and in 2016 an average of 5% of U.S. homes in 73 water systems had their water disconnected due to non-payment [4] (p. 2). According to the US Water Alliance, over two million people in the U.S. do not have access to safe drinking water and sanitation [5] (p. 12).

Against this background of multiple, overlapping water quality and affordability crises in communities across the country, we see more and more civil society actors use the framing of "water is a human right" to demand change. Making this claim can seem a curious trend, considering the U.S.'s attitude towards domestic human rights and socio-economic rights, in particular. The federal government largely does not acknowledge socio-economic rights as rights but views them as aspirations or entitlements that are gained through hard work [6] (pp. 435–436). There is a perception that the U.S. Constitution and

legislation guarantee the necessary rights rendering international human rights instruments unnecessary [6] (p. 435); see also [7]. The U.S. has not ratified the International Covenant on Economic, Social and Cultural Rights (ICESCR), and U.S. courts rarely rely on international human rights instruments.

At the international level, the U.S. government has supported the recognition of the human rights to water and sanitation. While the U.S. called for a vote and then abstained from voting on the original United Nations General Assembly resolution recognizing the right to water and sanitation in 2010 [8], the U.S. has since joined consensus, voted in favor, and even co-sponsored resolutions on the rights to water and sanitation, thus expressing its political support for these rights. However, in its explanations of position, the U.S. is always quick to point to the significance of the rights to water and sanitation for international cooperation and stresses that it has made water and sanitation a priority in official development assistance [9], thus relegating the rights to water and sanitation to challenges abroad. The U.S. also stresses that the rights to water and sanitation derive from the ICESCR, to which the U.S. is not a State party. Accordingly, the U.S. does not view the human rights to water and sanitation as domestically applicable and justiciable [10].

Historically, there was a time when socio-economic rights were not seen as unnecessary. Socio-economic rights were at the forefront of the New Deal era policies under President Franklin D. Roosevelt in the 1930s [11] (p. 289); [12] (p. 107). During the drafting of the Universal Declaration of Human Rights (UDHR) after World War II the U.S. was a strong proponent of the inclusion of socio-economic rights [13] (p. 896); [11] (p. 294). However, a shift in the acceptance of domestic socio-economic rights occurred between 1947 and 1948. The UDHR was adopted against the backdrop of the Cold War, during which the U.S. experienced a rising fear of communism, ideas of isolationism, and opposition to addressing racial inequalities as a backlash to New Deal era policies [13] (p. 895); [12] (p. 118).

For a long time, NGOs, too, have been hesitant to advance socio-economic rights through advocacy [14] (pp. 1–3); [15]. In the last two decades, however, we see a shift in the movement towards embracing socio-economic rights in their work [16–18] (p. 381), perhaps most notably in the context of health. "Healthcare is a human right" has become a calling card for domestic human rights on a public scale. To some extent, this language has entered the political landscape, for example being pushed to the forefront of the 2020 debates for the Democratic primaries, with candidates declaring healthcare as a human right on national television [19] and President Biden arguing on social media that "housing should be a right" [20].

A similar trend can be observed for the right to water. At the political level, Senator Bernie Sanders and Representative Brenda Lawrence co-authored an op-ed for *The Guardian* seeking to bring access to water to the forefront of political discourse. They explicitly stated that water is a human right [21]. Water activists look towards the human rights framework for their advocacy, forming behind a rallying cry that "water is a human right". As we explored in a companion paper, it seems perplexing that activists relied on the human right to water in a country that still challenges the need for socio-economic rights. Yet, activists expressed that the human rights framework provides empowerment and validation to the communities that are most impacted [22].

This article explores *how* advocates used the human right to water framework to work towards clean and affordable water for all. We find that advocates employed various strategies largely in social and political circles. Specifically, the article examines how activists and advocates participated in both confrontational and cooperative advocacy approaches in the courts, on the streets, and at the Capitols on local, state and national levels.

2. Methods

This article is based on semi-structured interviews with water advocates and activists in the U.S. relying on human rights. We interviewed twenty individuals in June and July 2018, complemented by an additional six persons in December 2020, who we identified through personal contacts in the National Coalition on the Human Rights to Water and

Sanitation, online research, and snowballing. Interviewees included both professionalized advocates and local resident activists living in communities which face violations of the human right to water. A few participants engaged in right to water advocacy and coordination at the national level. Most participants were local advocates located in the Central Valley in California, Flint and Detroit in Michigan, and in Appalachia, specifically eastern Kentucky and southwestern West Virginia. While these regions are not exhaustive of the many civil society groups across the country mobilizing around the human right to water, they demonstrate the breadth and richness of community organizing (see [22] for more details). The interviews in 2018 were conducted face-to-face in the respective communities, while the interviews in 2020 were conducted online. They focused on engagement in human right to water advocacy, how activists utilized the framework of human rights, the reasoning for using the framework, and why and how they chose specific strategies of engagement. All but one interview were recorded and transcribed, they were then thematically coded for common themes in line with the framework set out by Virginia Braun and Victoria Clarke [23]. Interviews were complemented with media sources and legislation. The study was conducted in accordance with the Declaration of Helsinki, and the project was reviewed by Columbia University's Institutional Review Board under Protocol Number IRB-AAAR7902. All participants gave their written informed consent for inclusion before they participated in the study. We discussed attribution options with participants, and most participants opted to be identified by name, given that they are highly visible actors in the movement who have been very outspoken on many occasions. Most interviewees are thus named in the study, while the others have been anonymized.

3. The Social Construction of the Right to Water from Below

Against the backdrop of the U.S. relationship with socio-economic rights at the domestic level, it seems peculiar that activists turned towards the human rights framework, but this has become increasingly common. Across the country, the right to water emerged through large- and small-scale coalition building on various levels, from local communities to the international sphere, resulting in the social construction of the right to water from below. Such coalition building has trended within communities pushed to the margins, given their disproportionate struggles with water quality, affordability, and accessibility (see [22]). Coalitions have formed in grassroots organizations and civil society gatherings, as well as within larger, established non-governmental organizations that traditionally avoided embracing human rights frameworks. The exchanges and opportunities for mutual learning between these different levels have been essential to advance the movement.

Some notable organizations engaging with the human right to water include the Alabama Center for Rural Enterprise, the Environmental Justice Coalition for Water, the Community Water Center, the #NoDAPL movement, Georgia WAND, Martin County Concerned Citizens, the Baltimore Right to Water Coalition, Food and Water Watch, the Unitarian Universalist Service Committee, the Color of Water, We the People of Detroit, the Michigan Welfare Rights Organization (MRWO), the New Mexico Environmental Law Center, Dig Deep, the Red Water Pond Road Community Association, the Campaign for Lead Free Water, among many others. Human rights language was found on organizations' websites, within mission statements, and in direct community action. One such example was The Alliance for Appalachia. The coalition's website stated that they "value clean water and healthy ecosystems as fundamental human rights" [24] which integrated the human right to water into their mission statement.

Grassroots organizing in Martin County, Kentucky, illustrates these trends. For Nina McCoy, forming a concerned citizens group to unify the county following a coal slurry spill that polluted the water supply was the first step in coalescing the community around the human right to water [25]. For residents who may have been fearful of speaking up about water contamination due to the coal companies' involvement, the concerned citizens group allowed for collective action to grow the movement for clean water socially as well as politically. This coalition building provided the basis for subsequent advocacy

through meetings with legislators and congressional briefings. In a similar vein, in the Central Valley in California, communities have been working with the Community Water Center to shift the perception of water as a human right. The collective acknowledgement that a community deserves clean water was a form of empowerment for communities unable to access clean and affordable water [26]. Similarly, MWRO has been advocating for low-income individuals in Michigan as an integral part of the fight to stop water shut-offs in Detroit. MWRO has worked directly with community members, centering their needs, and enabling residents to take control of the fight for water affordability. Sylvia Orduño explained that "the human rights work has allowed [them] to expand more of the conversations with people" [27].

The call to address racism has underpinned the human right to water movement in African-American communities in Michigan (Detroit and Flint) as well as amongst primarily rural, Latinx communities in California. Activists responded to governmental inaction and victim-blaming narratives claiming that water shut-offs occur because "poor Black folks" do not pay their bills [28]. More recently, the U.S. has seen large-scale support for the Black Lives Matter movement. For Patricia Jones, these external factors could help the human right to water movement continue forward [29]. Large-scale national "big white green groups" have begun to understand environmental racism and racial disparities in access to water and sanitation [29]. While localized movements have long been addressing racism in the face of water shut-offs, contamination, and inequity, national organizations have begun to understand the structural causes of the water crisis potentially opening opportunities for broader coalition-building.

In response, more and more organizations have centralized the human right to water to mobilize a coalition of individuals, grassroots organizations, and larger NGOs, allowing for a collective voice. Such coalition building has expanded into international movement building. MWRO organized an International Social Movements Gathering on Water and Affordable Housing in Detroit. The Gathering allowed for advocates not only from Michigan and the U.S. but from countries such as Italy, Mexico, and Venezuela to come together to develop strategies to demand affordability in water and housing [30]. One attendee, Paula Swearengin of the Ohio Valley Environmental Coalition, spoke directly to the need of national coalescing, "Appalachia stands with you. We protest, we rally, we fight our leadership that doesn't stand with us. We need national collaboration" [30]. The Gathering identified a collective need for advocates from across the country and abroad to learn from one another. Coalition building provides an opportunity for unified voices and collective power when demanding human rights.

More so than a legal framework, activists perceived and utilized human rights as a powerful framework that provides (symbolic) legitimacy for their advocacy [22]. While much of the earlier literature on socio-economic rights has focused on judicial enforcement (often motivated in response to challenges to the justiciability of socio-economic rights) [31,32], rights-based strategies are, in fact, much broader and more diverse. Here, our focus is on exploring how activists used the right to water that they have socially constructed from below in an environment that initially provided limited institutional, legislative, and judicial support. Instead, the coalescing on a community, state, national, and even international level between residents and organizations and the unification of people from diverse backgrounds has tapped into the social and political spheres, creating a movement from the ground up, which has provided the foundation for right to water advocacy taking root.

4. Situating Strategic Choices for Right to Water Advocacy within Political Opportunities

The strength of the right to water movement lies in its coalition-building and collectivity that has enabled activists to construct the right to water from below, which has imbued movement participants with power. Similar to Shareen Hertel's identification of a hybrid approach to rights-based social movements in India [33], we see a multi-pronged approach in the human right to water movement in the United States. Building on pre-

vious work on the internal validation and collective identity developed through human rights [22] (see also [34]), we explore how activists and advocates used their power to act. They engaged on a community and social level ("on the streets"), within the political system ("at the Capitols"), and to a more limited extent in the judicial system ("in the courts"). The interviews with advocates and resident activists show that there was not one single avenue for engagement, but rather a network of engagement strategies, tactics, and mechanisms ranging from confrontational to cooperative in social spheres and political systems. Such strategies were often informed by the political climate of local, state, and sometimes national governments. Activists and organizers have consistently taken signals from the extent of governmental openness to determine engagement strategies. Alice Jennings explained this as a triple-pronged approach of "agitation, litigation, legislation and policy" [35].

We use political opportunity theory to analyze the movement's actions, successes, and failures in relation to the opportunities available [36]. Sidney Tarrow explains political opportunities as "consistent—but not necessarily formal or permanent—dimensions of the political environment that provide incentives for people to undertake collective action by affecting their expectations for success or failure" [37] (p. 85). Political opportunity theory attempts to explain how different social movements take place in relation to external factors, offering contextualization of a movement in relation to the world around them (see [38–41]). Political opportunity theory can help contextualize how the human right to water movement in the U.S. has taken shape through movement actions. Peter K. Eisinger (1973) examines governmental "openness" (i.e., more government responsiveness to constituents) and "closedness" (i.e., less government responsiveness to constituents). As others have described in other contexts, pragmatic advocates often put the lived experience of people struggling with human rights violations at the center without adopting one single approach, thus allowing them to respond to tactical openings. They "move beyond the adversarial remedial paradigm that dominates domestic justice . . . . They do not consider adversarial procedures and court orders to be the best methods for challenging ESR violations and enforcing ESR mandates. But neither do they avoid such advocacy tools when appeal to the courts will build their campaigns' strategic power. When they do go to court, their reasons may have less to do with the potential effect of the judgment than the expressive force of the lawsuit or the potential to create a public spectacle or spark public movement at a press conference" [42] (p. 149).

We examine *how* advocates used the human right to water by situating the confrontational tactics ("*the courts*" and "*the streets*") and cooperative tactics ("*the Capitols*") in the context of political and non-political factors to show how the opportunities available to the movement influenced their decisions to move forward with one tactic over another. Local and state governments in the U.S. are not solely open or closed, rather they experience shift over times. The human right to water movement has carefully navigated these shifts to develop confrontational and cooperative strategies to achieve success. This push and pull of confrontational and cooperative approaches can be seen in the courts, on the streets, and at the Capitols, which we will explore in turn.

4.1. The Courts

Water advocates and activists have engaged in right-based litigation in domestic courts to a limited extent. Moreover, while these are not judicial mechanisms per se, they have also sought to engage with international and regional human rights mechanisms.

4.1.1. Domestic Rights-Based Litigation

While rights-based litigation is often perceived as the most immediate form of enforcing and advocating for human rights, in the U.S. the judicial sphere has played a limited role in right to water advocacy. Judicial engagement with international human rights law, and socio-economic rights in particular, is rare in the U.S. court system [43] (p. 312); [44] (p. 533). Britton Schwartz, a lawyer and human right to water advocate in California, explained

that litigation is not always the right path: "I don't actually think [suing people is] even a good idea, even though [they've] found a hook to do it. Because these people have to deal with each other, and it's nice that we threaten litigation sometimes, right? Sometimes that's a really powerful stick, but a lot of times it's more about filling the gaps that are keeping people apart than pitting them against each other." [45].

Mark Fancher, a lawyer with the American Civil Liberties Union (ACLU) Michigan, explained that while the 1960s and 1970s saw "activist judges", in more recent years this has subsided and there is little room for innovation and creativity to incorporate international human rights law into the courtroom [28]. Another ACLU lawyer, Bonsitu Kitaba-Gabiglio, echoed this sentiment, noting that the underpinning belief in the U.S. that socio-economic rights are earned through hard work rather than guaranteed by the government is reflected in the thinking of judges, creating a challenge to human right to water litigation [46]. Patricia Jones, a longstanding human rights researcher and advocate within the U.S. human rights movement, argued that there are avenues within U.S. courts for human rights law through the ratification of treaties such as the Convention on the Elimination of All Forms of Racial Discrimination. However, this is challenged by the lack of education for U.S. judges in human rights and international law [29]. Given the lack of support on the part of judges, advocates primarily maintained their engagement on the streets and at the Capitols rather than in the judicial sphere.

There were exceptions, though: In at least one U.S. court case, litigants explicitly included the human right to water in their complaint. In the 2014 case, *Lyda et al. v. City of Detroit*, the plaintiffs filed a civil case against the city of Detroit in relation to the water shut-offs, citing not only civil violations but also a violation of the human right to water. They requested an injunction to stop the water shut-offs and to implement an income-based affordability plan [47]. The *Lyda* case was in direct response to the vast number of 3000–5000 water shut-offs per week and actions by the government to mark the households who were behind on their payments with blue paint [35]. The government's lack of response to the movement's demands caused activists to move forward with litigation despite the challenges noted above [35]. This demonstrates a move toward confrontational strategies when governments are perceived as closed [36,38]. The *Lyda* case was supported by an amicus curiae brief based on human rights standards through the International Network on Economic, Social and Cultural Rights [48], but the court found explicitly that plaintiffs cannot rely on a right to water [47]. Such a ruling signaled to advocates that the courts were not a viable choice for ensuring water affordability. In response, advocates turned their efforts to other strategic advocacy, often through cooperative strategies and engagement with the city government to propose water affordability plans, as we discuss below.

However, years of advocacy for ensuring water affordability and ending water disconnections due to an inability to pay have not yet brought permanent results in Detroit. In response, advocates have recently returned to litigation. On 9 July 2019 the ACLU of Michigan filed a class action lawsuit (*Taylor et al. v. City of Detroit*) on behalf of a coalition of organizations against the City of Detroit to codify a water affordability plan and demand an end to the water shut-offs in the city. The complaint highlighted racial discrimination and the water shut-offs' impacts on the health of residents. The first line read "Water is a human right and basic necessity, especially in a time of pandemic" [49]. While the human rights framework was not centric to the legal approach in this case, it has entered the language of the lawsuit. The decision to incorporate human rights language in the *Taylor* case stemmed from the need to humanize the water crisis as well as to compare how the U.S. treats water compared to the rest of the world [46]. Human rights have continued to influence the framing of the water crisis in Detroit.

The *Taylor* case was built upon ideas surrounding water insecurity in the face of a pandemic, hoping that COVID-19 can be an external factor that pushes the needle forward on realizing the human right to water in Michigan [35,46]. In the light of the pending *Taylor* case and the impacts of COVID-19, the mayor of Detroit instilled a two-year moratorium on water shut-offs with the promise of working towards a comprehensive water affordability

plan [35]. This step signals the success of combining confrontational efforts such as litigation and more cooperative strategies discussed below. It also shows how external forces beyond the movements' control, such as COVID-19, can shift an unresponsive government into a responsive one [35,46] (cf. also [38]). The movement demonstrated their strategical savviness by capitalizing on this shift to advance their goals.

4.1.2. Engagement with International and Regional Human Rights Mechanisms

Apart from domestic litigation, advocates have also engaged with international and regional human rights mechanisms through several United Nations (UN) Special Procedures, the Universal Periodic Review (UPR), and the Inter-American Commission on Human Rights (IACHR). Such engagement has provided a sense of validation [22]. The provision of space in which communities can be heard has reinforced the activists' lived experiences when the local, state, and federal governments continued to ignore their demands and failed to act.

Confrontational tactics can be seen through the engagement with UN Human Rights mechanisms as a way to disrupt the international image of the U.S. Turning outward can "name and shame" the country in the international arena. Advocates have engaged with several UN mandates: The Special Rapporteur on Water and Sanitation undertook a country mission in 2011 [50] and visited Detroit again at the invitation of civil society in 2014 together with the Special Rapporteur on Housing [51]; several mandates expressed their concern about the situation in Flint through communications addressed to the government [52]; in 2016, the Working Group on People of African Descent expressed its concern about the impact of lead contamination in Flint on African-Americans highlighting the racial disparities of the water crisis [53]; and the Special Rapporteur on Extreme Poverty visited Alabama and Appalachia in 2017 making the water and sanitation crisis part of his agenda. A team of journalists from *The Guardian* joined him and covered the visit in depth [54], greatly enhancing its visibility. In a highly-publicized exchange in the Human Rights Council, the Special Rapporteur drew renewed attention to the sanitation crisis. After U.S. Ambassador Nikki Haley withdrew the U.S. from the Human Rights Council and characterized the body as a cesspool [10], the Special Rapporteur opened his statement: "Speaking of cesspools, my report draws attention to those that I witnessed in Alabama as raw sewage poured into the gardens of people who could never afford to pay $30,000 for their own septic systems in an area remarkably close to the State capital. I concluded that cesspools need to be cleaned up and governments need to act. Walking away from them in despair, as in Alabama, only compounds the problems" [55].

With regard to the visit to Detroit, Mark Fancher remembered, "the one time that I thought that the administration really got nervous . . . on the border line of being distraught was when the United Nations came in at the invitation of a coalition of grassroots activists and organizations, when they came, and, you know, they observed and reported what they saw that made them very, very nervous, because they didn't want the world to know, what was happening here" [28].

These sentiments were echoed by advocates from California who saw the visit by the Special Rapporteur on Water and Sanitation as an opportunity to publicize the crisis and to grow awareness surrounding the movement [56]. The visit exposed the lived experiences of residents to the general public in California and beyond. There was a heightened concern amongst California residents after the UN visit about the water crisis, and residents themselves began reaching out to their elected officials asking how they were going to respond to the crisis [56].

The realization of the right to water was also addressed in the UPR, a UN human rights mechanism that is based on peer review and constructive engagement among States and hence less confrontational than other mechanisms [57]. Two recommendations from the second UPR cycle in 2015 took up the right to water [58], which the U.S. partially accepted [59]. Following this process, the U.S. government organized interagency Working Groups that addressed the water recommendations alongside others and provided oppor-

tunities for civil society engagement [60]. While these were discontinued under the Trump administration, the Biden administration has begun to re-engage with the UPR process and has accepted recommendations from the third UPR cycle concluded in 2021, including on improving sanitation for marginalized communities [59].

Utilizing UN human rights mechanisms has reshaped the discourse into one of human rights violations, supported communities in building legitimate claims, and conveyed a sense of validation to activists [22]. International and regional mechanisms also served for "naming and shaming" to elevate visibility in an effort to apply pressure to the government [61]. However, utilizing human rights mechanisms has its limitations as they do not have direct enforcement powers to hold the U.S. accountable for human rights violations. For example, in 2015, the IACHR held a hearing on the human right to water in the Americas in which civil society organizations from the U.S. and several Latin American countries provided information to the Commission to shed light on the violations of the human right to water across the continent [62] (p. 492). The hearing provided a carefully orchestrated demonstration of the human rights violations people live with. Before the hearing, activists met and rehearsed, adjusting the timing and order of testimonies for the most powerful impact. The Commission acknowledged water affordability crises in cities such as Detroit, Baltimore, and Boston, and contamination within Indigenous communities including the Red Water Pond Road Community in New Mexico [62] (pp. 490, 492). Activists followed up by requesting another hearing focused on the U.S. which would present an opportunity to engage directly with U.S. government representatives. Yet, while acknowledging the importance of water and sanitation, the U.S. representative noted that the U.S. is not bound by the ICESCR and therefore this right is not justiciable in the U.S. [63] (23:15–30:00) without engaging substantively on the issues raised by advocates. Possibly with the exception of the initial phases of the UPR follow-up in 2015/16, responses by the federal government have largely remained disengaged and non-committal.

As advocates have engaged in formal, confrontational strategies in courts and the mechanisms available on the international level, limitations of these approaches have become apparent. The human right to water is not considered justiciable in the U.S. and therefore human rights-based strategies do not have the biggest impact in the courts. With regard to international advocacy, some UN engagement made U.S. government officials "very, very nervous" [28] as explained above. Yet, as can be seen in the 2016 hearing, the U.S. government often lacked genuine engagement, highlighting that this rather confrontational act did not sway the government into action, at least not directly. The purpose, though, of engaging in litigation and hearings was to bring attention to the crisis and to garner (international) recognition. Courts and international mechanisms were not the sole strategy used by advocates but formed part of a larger advocacy strategy that incorporated the confrontational and the cooperative. In other contexts, such advocacy has provided background legitimacy and a destabilization (or loosening) of institutional scripts that "can create an environment that supports institutions to change in the direction of greater ESR compatibility" [64] (p. 176). As such, even if it does not prompt immediate reactions, it lays the groundwork for further engagement.

4.2. The Streets: Resistance and Civil Disobedience

Advocates further achieved destabilization through marches, protests, rallies, and direct acts of civil disobedience as a means of making activists' voices heard to unresponsive governments [35]. When a government shows a high level of closedness, social movements often react with protest and civil disobedience to elicit a governmental response [38].

One of the most publicized resistance efforts took place in Michigan. Both Flint and Detroit have seen sustained efforts of activists taking to the streets to demand the human right to water as Detroit residents faced water shut-offs and Flint residents were poisoned by the water supply (see [65] for a detailed account of the struggle in Flint). In Detroit, the *New York Times* picked up a story of demonstrators marching in the streets chanting "fight, fight, water is a human right" [66]. Over the years, advocates have continued to demand

the suspension of shut-offs, debt forgiveness for those who cannot afford their bills, and a more comprehensive water affordability program [67].

Paired with marches was civil disobedience [68]. Activists in Detroit blockaded trucks on their way to shut off residents' water [69,70] (p. 12). One group of water rights activists known as the "Homrich 9" was charged with disorderly conduct, a criminal misdemeanor, in the summer of 2014 [71]. Homrich was a contractor used by the city of Detroit to shut off water services [72]. The protesters' goals were to keep the water on for Detroit residents as well as to bring light to the destructive policy and advocate for a system in which utility bills are based on a resident's ability to pay [67]. This act of civil disobedience not only brought the activists into the spotlight on the day of the blockade, but their trial drew significant attention afterwards, and their story was told and re-told, including at the Social Movements Gathering. Such "moments of power reversal get remembered and retold in ways that sustain their politicizing effect over time" [64] (p. 154).

Governmental inaction drove the human right to water movement to engage in confrontational tactics. Flint and Detroit advocates recognized the unresponsiveness of their government in the face of their demands. Alice Jennings explained this relationship and reaction to the government: "when something like the shut-offs happen . . . or the complete and total just turning your back, you're not listening to us. You're not listening to us. So, we have to show you" [35]. Michigan's history of strong labor movements has not only educated people of how race, gender, and socio-economic inequalities intersect, but it has provided the human right to water movement with a framework on how to protest in the face of unresponsive governmental actors.

Michigan was not alone in relying on civil disobedience. Junior Walk of the Coal River Mountain Watch in West Virginia, an organization fighting against mountain top removal and the protection of the land and water from coal mining pollution recalled: "I've done a little bit of like direct action where getting arrested on surface mines, helping out with tree sits or blockades" [73]. As coal companies have continued to extract resources and pollute water without consequences, accountability, or regulation by the local governments, activists were reactionary. Where governments appeared closed, activists reacted with confrontational strategies that seek to generate public outcry and make government actors see their demands.

These trends at the local level mirrored resistance at the national scale. The Poor People's Campaign is a nation-wide call for a moral revival to address systems of oppression [74]. The campaign carries on the legacy of Dr. Martin Luther King Jr. who led the first Poor People's Campaign in 1968 and uses direct non-violent civil disobedience as one of its main organizing tactics [74]. Human rights are centered in its work, with the list of demands including a fundamental right to clean and affordable water [75]. Rev. William Barber, one of the leaders of the movement, visited Lowndes County, Alabama, in February 2019 in support of the communities struggling with access to safe sanitation and wastewater services [76]. Teri Blanton, a human right to water advocate in Kentucky, attended one of the acts of civil disobedience with the Poor People's Campaign. She recalled "I was carrying my sign about 'lack of clean water is violence'" when she was arrested [77].

The protests advocates and activists engaged in have embraced the human right to water as a philosophy, a strategy, and a slogan. At demonstrations, the human right to water was found in the signs and chants used by activists with "water is a human right" as a common phrase. The role of the human right to water in these actions went beyond the belief in the right, it provided an accessible rallying cry for the people most impacted by unsafe and unaffordable water. It could be plastered on a sign or used as a social media hashtag to develop greater visibility of the water crisis. While the U.S. has made it clear that the country is not bound by the international guarantees of the human right to water, this phrase is symbolic of the struggle that marginalized communities in the country have faced constructing and cementing the right to water from below.

Media and education played a key role in gaining visibility for the movement and exposing governmental failures. Documentary film making and letters to the editors have

sought to ensure that the general public is exposed to water inequities [29]. Local and international media outlets ranging from *MLive* in Michigan to *The Guardian* have provided extensive coverage on water issues that have contributed to shifting perceptions. Lack of access to safe and affordable water is increasingly seen as a human rights violation, and movement actors continue to work with *The Guardian* to extend their reach to communities that have thus far received less visibility and to build a coalition across the entire country [78].

At the same time, education played a key role for the movement internally to build and strengthen coalitions by training others to continue the work in their own communities [56]. Providing communities with the education, advocacy tools, and resources needed to continue the human right to water struggle has allowed them to successfully respond to the government as they see openings and closings, strategically deciding when to respond with confrontation and cooperation, respectively.

Ultimately, confrontational approaches such as litigating, using human rights mechanisms, and taking to the streets, faced limitations for bringing about change when used on their own. However, such tactics helped uncover openings within the government, such as COVID-19 responses on the state level in Michigan [35]. Similarly, hosting the UN Special Rapporteur on Water and Sanitation in California expanded public knowledge on the crisis while putting pressure on the state government to act. This opened up spaces for further engagement. In this light, confrontational approaches can help expand coalitions and garner attention within local communities as well as national and international audiences.

4.3. The Capitols

Advocates did not use confrontational approaches in isolation but complemented them with lobbying, developing policy proposals, suggesting concrete plans, and running for office themselves. In some instances, activists succeeded in identifying or creating openings for engagement in response to what Peter Houtzager and Lucie E. White describe as "heat[ing] up on the streets" [64] (p. 179). Advocates engaged cooperatively in the governmental system in line with Eisinger's (1973) description of relative government "openness" and responsiveness. When a government demonstrates closedness and openness in different parts, social movements voice their demands to the segments of government that are open and willing to listen [38]. Movement actors responded to and took part in the government where they saw openings available to them as a way to balance the confrontational tactics with direct political engagement to push their agenda forward.

4.3.1. Lobbying and Legislation

Using their collective power, activists and advocates engaged in lobbying and promoted legislation that embodies the right to water. In Appalachia, Junior Walk from Coal River Mountain Watch lobbied state and federal legislatures for regulations [73]. The West Virginia Rivers Coalition advocated for clean water policy in West Virginia and Washington D.C. to influence regulations and legislation [79,80]. Such lobbying and political dialogue resulted in the integration of human rights language in the political sphere.

Residents across the Central Valley in California have been organizing since the late 2000s with a collective goal of passing state-level legislation that recognized the human right to water, supported by organizations such as the Environmental Justice Coalition for Water and the Community Water Center. This coalition was successful in reaching the passing of a bill (Assembly Bill 685), which established that "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes" [81], which reflects international human rights standards [82]. The success was largely due to centering the needs of the communities that would benefit the most from this legislation [56]. The movement further supported another bill (Senate, Bill200), which established a safe and affordable water fund seeking to ensure that the human right to water is implemented [83].

The passing of Assembly Bill 685 highlighted the multi-pronged approach of confrontational and cooperative tactics, making use of opportunities as they became available to the movement. Assembly Bill 685 had been vetoed by Governor Schwarzenegger before it found success under Governor Brown. As a California water advocate explained, during the bill's second time in the state legislature, the movement was working with internal partners [56]. When the bill was placed in suspense, the movement was made aware and was able to make informed decisions on next steps. As a result, the movement held a press conference near the state Capitol, a confrontational move to apply pressure on the government via media exposure. Advocates simultaneously lobbied representatives on the inside, a cooperative action utilizing the means available to them through the governmental system [56]. They made strategic choices in response to the government's partial closedness, putting the bill in suspense, as well as the simultaneous openness of some parts of the government which they had identified as internal partners. Advocates explained that the combined impact of confrontation via press exposure and cooperation via lobbying, in direct response to these governmental signals, ultimately allowed for the bill to pass successfully [56].

Pointing to the diffusion of rights-based legislation, the federal legislature and other U.S. states have enacted or at least introduced laws dealing with the right to water, some of which directly cite UN documents and resolutions. At the federal level, Representative Tlaib has introduced the Emergency Water is a Human Right Act [84], which has not (yet) been adopted, though. Initiatives in individual U.S. states have found more success. Most recently, due to the advocacy work of environmental groups, New York has adopted the right to clean water in the state constitution alongside the right to clean air and a healthful environment [85]. Other initiatives have been introduced as bills either in the House/Assembly or the Senate of the bicameral legislatures common in U.S. states. Louisiana enacted House Bill 533 in 2017, which has a goal of improving the quality of public drinking water, citing UN General Assembly Resolution 64/292 and General Comment No. 15 by the Committee on Economic, Social and Cultural Rights [86]. Virginia adopted a resolution on the right to water [87]. Ohio saw the introduction of a water bill (House Bill 639) in 2020 which would address affordability of water within the state and also cites UN General Assembly Resolution 64/292 [88]. Similarly, in Minnesota a bill was introduced in both the House (House Bill 1095 Minnesota State Policy) and Senate (Senate Bill 1968 Minnesota State Policy) in 2017 to declare water as a human right. Both suggested bills stated that "[i]t is the policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes" [89,90], which resembled the language adopted in California. While in their early stages, these legislative initiatives signal that the movement centered on the human right to water has found support from legislators and some success in the political sphere, and advocates continue to call for guarantees for safe and affordable water in the context of infrastructure negotiations [91].

Michigan, a leader in the human right to water movement, has also seen sustained efforts to pass legislation to recognize water as a human right. Most recently, Senate Bill 49 was introduced in 2019 as the "Human right to water act" [92]. Notably, one of the state's Senators who introduced the bill, Stephanie Chang, was an attendee at the 2015 Social Movements Gathering. As in California, Senator Chang's engagement with the movement demonstrates relationship-building and cooperation between advocates and politicians [93]. By forging connections with internal actors, the movement created their own openings to put forth legislation.

However, the U.S. experiences a strained political divide, with Republicans and Democrats often unable to find common ground, which has been a factor in the human right to water movement. For example, in California, Assembly Bill 685 found success in 2012 under a Democratic state legislature and governor, while the bill had been vetoed by Governor Schwarzenegger, a Republican, three years prior [94]. House Bill 533 in Louisiana was successful under a Democratic governor, but the Democratic representative

who introduced the bill was met with conflict amongst Republican colleagues [95]. In Michigan, despite Democratic Senator Chang's support for human right to water legislation, the state's Republican controlled legislature has stopped the bill from moving forward.

Despite this divide, external factors such as the COVID-19 pandemic can lead to progressive change. Michigan, with a Republican-led state legislature, has seen a shift as the state Senate voted to extend the moratorium on shut-offs [28]. Where Michigan leaders had previously seen water shut-offs as an "urban Black" problem, COVID-19 exposed how water insecurity impacts communities outside of Detroit and Flint (i.e., white, middle-class communities) [35]. COVID-19 has challenged previous narratives that water insecurity is brought on by the people themselves rather than a lack of governmental responsiveness and support, which in turn has resulted in government action.

Constructive engagement also took the form of developing policy proposals such as water affordability plans. Since 2005, Detroit activists have been striving towards a comprehensive water affordability plan [96]. Advocates were aware that the right to water is often perceived as a lofty, aspirational goal, whose implementation faces challenges when confronted with the realities of shrinking cities and decaying infrastructure. To address these challenges head-on, advocates have been engaging with economists and utility specialists such as Roger Colton to design plans that meet the needs of low-income populations while also ensuring financial sustainability. MWRO and many others have cited Philadelphia as a success story in adopting an affordability program [27]. The city established an income-based Tiered Assistance Program (TAP) in 2017 with the goal of achieving affordability for all residents [97]. The program promotes a human right to water framework through its income-based tariff structure to assure accessibility for all regardless of financial ability [97]. Philadelphia Councilwoman Maria D. Quinones-Sanchez stated, in relation to TAP, that "safe drinking water is a basic human right" highlighting political support for the human right to water [95]. For advocates around the country, the TAP model has shown that the human right to water can influence policies to better protect and center the needs of communities.

4.3.2. Governmental Engagement

Another common cooperative strategy was direct engagement with political and governmental actors on multiple levels. The organization Martin County Concerned Citizens, for example, enacted its voice and power through direct political engagement. Following a coal slurry spill, the group travelled to Frankfort, Kentucky, to attend the meetings of the Public Service Commission and engage in the public comment section. The initial governmental response to the spill had been lackluster and government actors had talked down to the county's residents, dismissing their concerns. The Public Service Commission meetings served as an opening to the concerned citizens and a space to create visibility [25].

The Alliance for Appalachia used its collective power to bring the voice of the people to the government, combining social engagement with direct political action [98]. Mary Love, a volunteer for Kentuckians for the Commonwealth, an organization tied to The Alliance for Appalachia, spoke to the ways in which the Alliance engaged constructively with the government on the state and federal level, for instance through lobbying days with Senators and Representatives. Under the Obama administration, the Alliance also met with EPA representatives, the Office of Water, the Office of Surface Mining Reclamation and Enforcement, and the Council on Economic Quality, which signaled the government's openness to listen to concerns [98]. This exemplifies how social mobilization and coalition building enabled advocates to transcend the social sphere and enter the political landscape.

Finally, individual actors not only lobbied governments officials, but also ran for office on local, state, and federal levels themselves. This may be the ultimate cooperative strategy of engagement—to take a step into the political system and seek to bring about change from within. Barbi Ann Maynard of Martin County, West Virginia, who has been a long-time advocate for clean and affordable water, bridged the gap between grassroots organizing and

politics by running for local council [99]. The jump from non-governmental organizations into the political system could also be seen with Laurel Firestone and Maria Herrera, both former staff with the Community Water Center in California. Firestone was appointed in 2019 to the State Water Board by Governor Newsom and Herrera was appointed in 2015 to the California Water Commission by Governor Brown [100,101]. Movement successes in California, such as the passing of Assembly Bill 685, opened governmental opportunities which gave movement leaders direct pathways into the government itself to bring their expertise into decision making processes. Recently, the California Water Boards have conducted surveys on water system financial impacts and household water bill debt demonstrating their concern for affordability [102]. At the federal level, Catherine Flowers, the founder of the Center for Rural Enterprise and Environmental Justice and a long-time water and sanitation advocate [103], has been appointed to the White House Environmental Justice Advisory Council [104].

These examples show how movement actors sought out openings for governmental roles to challenge the current governmental make-up; running for local office is a way to transform trends of unresponsiveness within the government (see [38]). Making these leaps from community-driven engagement to political engagement signifies the desire to translate the demand for the human right to water on the streets to the political landscape as a way to influence change from the inside. While it is too early to determine to what extent advocates in California and West Virginia have been able to bring about change from within, others have noted that persistent activism often creates demand and legitimacy and enables people on the inside to respond [64] (pp. 177–178).

Combined with the confrontational acts in the courts and on the streets, action taken to engage in legislative processes helped drive the human right to water forward into the political space. While advocates chanted "water is a human right" on the streets and human rights mechanisms raised awareness of the water crisis, coalitions of advocates simultaneously approached government institutions with a unified demand for clean, affordable, and accessible water. Through multi-tiered efforts of lobbying, running for office, and introducing right to water legislation, these cooperative approaches were a necessary tactical component of the human right to water movement and found strength through coalitions that united residents, activists, and NGOs.

5. Conclusions and Outlook

The right to water movement in the U.S. has socially constructed the right to water from below. In a context with limited legislative recognition and judicial support, a context that can even be considered hostile to socio-economic rights, the movement has succeeded in animating the right to water. Initially, this right was constructed in the social sphere from the ground up with subsequent influences on legislation, policy, institutions, and service provision, demonstrating the success of the movement. The right has been propelled through various confrontational and cooperative approaches in the courts, on the streets, and at the Capitols. Advocates used adversarial approaches: protests and civil disobedience; reliance on human rights mechanisms; and litigation to a more limited extent. These confrontational approaches occurred simultaneously with the development of concrete proposals and plans for ensuring water affordability and engaging with Representatives such as Stephanie Chang during the Social Movements Gathering in Detroit. There was no clear sequencing between confrontational and cooperative strategies, but we saw a swinging pendulum between cooperative and confrontational approaches as the movement read both signals of open and closed governments. Advocates made strategic choices in response to past experience and government reactions. Where government spaces were closed, activists heated up and increased the pressure through adversarial approaches. Where spaces opened up, advocates engaged, cooperated, developed constructive proposals, pointed to successes elsewhere, and became part of the process. If such constructive engagement did not move the needle as seen in Detroit after years of discussions over

suggested affordability plans, advocates returned to adversarial approaches. The right to water movement has embraced confrontational and cooperative approaches persistently.

External factors have influenced—and are likely to continue to influence—the movement, including the political divide in the U.S., global health crises such as COVID-19, and larger social movements such as Black Lives Matter. Continuing to educate the public on how these and other factors intersect with the realization of the human right to water will be crucial for the movement's success moving forward. The multi-pronged approach of agitation, litigation, and legislation has led to successes for the human right to water movement and advocates and activists will likely continue using these approaches to advance the movement.

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Article

Right to Water and Courts in Brazil: How Do Brazilian Courts Rule When They Frame Water as a Right?

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Abstract: The international protection given to the right to water has increased over the last decades, with two United Nations' resolutions establishing a freestanding right to water in 2010. Several countries have a right to water enshrined in their constitutions, while in other countries, this right has been recognised by the courts. This study aims to assess whether and how Brazilian courts are deciding water-related conflicts using the "right to water" frame, what the content given to this right is, and whose rights are protected. We created a comprehensive database of decisions issued by Brazilian courts at different levels containing the expression "right to water". Our main findings are that the great majority of decisions are from lower courts and were issued on individual cases related to water supply. Further, we have seen that courts are frequently prohibiting the disconnection of water supply services when extreme vulnerability is argued. The same has been seen in other Latin American countries, such as Argentina, Colombia, and Costa Rica, with the one main difference that in these countries, the right to water has been carved out by the Constitutional Courts. The Brazilian Federal Supreme Court, which has the last word on the interpretation of the constitution, has not issued any decisions establishing a right to water, but there is legal mobilisation aiming for this and using UN resolutions as a key argument.

Keywords: right to water; courts; vulnerable groups; UN resolutions

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1. Introduction

Brazil is one of the world's richest countries in water resources, yet conflicts around water are on the rise. Several pressing issues recur: the exploitation of water resources located in indigenous peoples' lands, both for energy production and mining activities; concerns regarding environmental protection of water sources; and the promotion of basic sanitation improvements. Such issues are also present in other Latin American countries, and the region has witnessed strong mobilisation around water rights and for water justice in the last decades, with the "water war" against privatisation of water supply utilities in Cochabamba, Bolivia, in the early 2000s as the most well-known event [1–3]. In Brazil and beyond, courts are often called upon to arbitrate these conflicts. This paper provides an overview of decisions by Brazilian courts where the "right to water" frame is used to decide water-related conflicts.

This is not a comparative study. However, we reference cases from other Latin American countries with the help of secondary sources aiming to situate our findings within the region's context concerning the construction of the right to water by national courts.

The Brazilian 1988 Constitution does not establish an independent right to water, unlike in some countries in Latin America, where a free-standing right to water was enshrined in the Constitution in the 2000s as a response to the privatisation of water utilities, such as Uruguay (2004), Ecuador (2008), and Bolivia (2009) [4–6].

In 2010, the right to water was recognised by the United Nations after decades of intense debates that originated at the 1977 UN Conference on Water in Mar del Plata,

Argentina, and culminated with the adoption of the United Nations General Assembly Resolution 64/292. The resolution, presented by Bolivia, highlighted civil society participation and was adopted without formal dissent (although with abstentions) [2,7]. The right was affirmed by the Human Rights Council in their Resolution 15/9. The Organisation of American States, in its turn, recognised the human right to water through resolution 2760/2012.

In the context of these normative developments, the Inter-American Commission on Human Rights (IACHR), following claims from civil society organisations, organised a hearing on Human Rights and Water in Latin America in 2015 and addressed the right to water on several occasions, whereas the Inter-American Court of Human Rights (IACtHR) has recognised the existence of a right to water, even though it is not explicit in the Inter-American Convention on Human Rights, by considering that the access to water is connected to other rights such as life and health [8].

The decisions from the IACtHR that explicitly refer to a "right to water" include cases that address the life conditions of indigenous peoples (*Comunidad Indígena Xákmok Kásek* vs. *Paraguay* and *Comunidad Indígena Sawhoyamaxa* vs. *Paraguay*). In these cases, although water is not the main issue discussed, the court uses the International Covenant on Economic, Social, and Cultural Rights to mention a right to water and make a point about the direct link between the livelihood and the access to natural resources [9] or to water specifically [10]. In this case, the court even dedicated a short section to analyse whether Paraguay had provided the indigenous community with water in sufficient quantity and quality and concluded the country had not. In addition, in a case focused on precarious conditions on a prison environment (*Vélez Loor* vs. *Panamá*), the court addressed the "right to water" of prisoners who, according to the IACtHR, must have access to salubrious water in enough quantity for their daily individual needs [11]. For this, the court refers to the same Covenant as in the other cases as well as to the General Comment n. 15 from the UN's Committee on Economic, Social, and Cultural Rights and to the recognition of water as a human right by the UN's General Assembly [8–11].

Further, an examination of the cases decided by the IACtHR until October 2021 where Brazil is one of the parties shows that only one (*Trabajadores de la Hacienda Brasil Verde* vs. *Brasil*) concerns water-related issues and only incidentally. The focus of this decision is work under conditions analogous to slavery, and one of the alleged violations in the case was not having access to water suitable for human consumption.

In national litigation, in the cases of Brazil, Argentina, Colombia, Costa Rica, and Peru, the right to water has been recognised through inference from other constitutional rights or legislation as well as international instruments [2,12–18]. In Peru, decisions from the Constitutional Court establishing a right to water were followed by a constitutional reform for the enshrinement of this right in 2017 [15].

When it comes to Brazil, although there are studies pointing to the existence of court cases dealing with the right to water [12,13], there are no comprehensive studies at the national level addressing whether or not courts explicitly refer to a right to water and, if they do, what the content given to this right is.

The judicialisation phenomenon in Brazil can be traced back to international trends and the country's institutional model. The 1988 Constitution is a landmark in Brazil's democratisation and contains several justiciable social rights that have led to a broader awareness of rights. It has also strengthened the autonomy of two key institutions: the *Defensoria Pública* (Public Legal Defence), responsible for providing legal aid for those who need it [19] (article 134), and the *Ministério Público* (Public Prosecution Office), with the duty to defend inalienable social and individual interests [19] (article 127), along with the courts [20]. The social rights established in the Constitution have been consolidated through legislation, such as the Consumer Protection Code [21], and this context of expansion of rights and strengthening of relevant institutions has led to an increase in claims urging the courts to give decisions on the implementation of those rights and the state's obligation to act in this process [22,23]. The hybrid constitutionality review model has a crucial role to

play as well: on the one hand, by giving the last word on the meaning of the constitution to the Federal Supreme Court, while on the other hand, by allowing every single judge at all court levels to address constitutionality [24,25].

Despite containing an extensive list of justiciable social rights, the Brazilian constitution does not establish a freestanding right to water and sanitation. This does not mean, however, that the "right to water" language has not reached the courts. This paper assesses the extent to which a right to water is being carved out by the Brazilian courts and what the content of this right is. In addition to the general judicial articulation of the right to water, we explore the articulation of the right to water on behalf of marginalised groups, such as *quilombola* communities (descendants of enslaved people) and indigenous peoples. Further, we investigate whether there has been an increase in the number of references to the right to water in decisions throughout the years, including references to the UN General Comment 15 in 2002 and the two UN resolutions in 2010: United Nations General Assembly (UNGA) Resolution 64/292 and the Human Rights Council Resolution 15/9.

We have identified that the great majority of decisions that address the "right to water" are from lower courts and were issued on individual cases related to water supply. Further, we have seen that courts are frequently prohibiting the disconnection of water supply services when extreme vulnerability is argued. The most commonly referred legal norms in the Brazilian decisions are the Constitution [19] and the Consumer Protection Code [21]. The Brazilian Federal Supreme Court, which has the last word on the interpretation of the constitution, has not issued any decisions establishing a right to water, but there is legal mobilisation using UN resolutions as one of the key arguments aiming for the recognition of this right.

2. Materials and Methods

We looked at decisions from the:

- Federal Supreme Court (*Supremo Tribunal Federal*, STF);
- Superior Court of Justice (*Superior Tribunal de Justiça*, STJ) with competence, among other things, to decide on appeals from lower courts over the interpretation of treaties and federal laws;
- Federal regional appeal courts (*Tribunais Regionais Federais*, TRFs) Brazil is a federal state, and its judiciary has federal judges and federal appeal courts with competence to rule on, among other things, disputes over rights of indigenous peoples; and
- Member states' appeal courts (*Tribunais de Justiça Estaduais*, TJs).

This study is made broad by inclusion of decisions rendered by all courts in the country except those specialised in electoral, labour, and military matters. The comprehensive scope of the decisions included in our study is illustrated in Figure 1 below.

In all studied courts, the relevant decisions for our database were selected after reading all decisions that were initially found. This enabled us to capture important nuances that would otherwise be lost by carrying out an exclusively quantitative analysis. All these court decisions were found publicly available on the website of each respective court, and searches were executed through the search tool provided for each court. All the links to the search mechanisms are available in the "Data Availability Statement" after the text. As the websites were the primary source, we have their search tool's limitations at the time we have established the sample as caveats. At that time, some tools stated that they search for the selected expression throughout the whole decision; these were TJAC (Acre), TJAL (Alagoas), TJAM (Amazonas), TJCE (Ceará), TJDFT (Distrito Federal e Territórios), TJGO (Goiás), TJMG (Minas Gerais), TJMS (Mato Grosso do Sul), TJRR (Roraima), TJSC (Santa Catarina), TJSE (Sergipe), TJSP (São Paulo), and TJTO (Tocantins). With other mechanisms, it was only possible to search throughout the summary, as TJPR (Paraná), TJRS (Rio Grande do Sul), TJRJ (Rio de Janeiro), TJRN (Rio Grande do Norte), and TJRO (Rondônia). Other ones did not make this information available, TJAP (Amapá), TJES (Espírito Santo), TJMT (Mato Grosso), TJPA (Pará), TJPE (Pernambuco), and TJPI (Piauí). It is essential to highlight

that the arguments brought by the claimants are not always mentioned in the decisions, and we have not looked at the complaints.

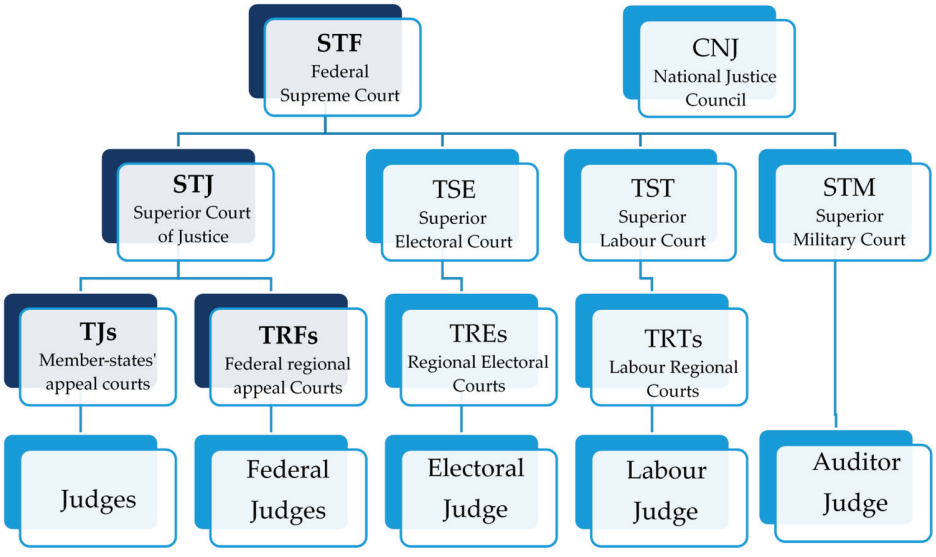


Figure 1. Brazilian judiciary's structure. All the figures in this article have been made by the authors.

We started our study by using the search engine on the Federal Supreme Court's website to look for any type of decision (collective and monocratic) containing the expressions in Portuguese that correspond to "right to water", "fundamental right to water", and "human right to water" (respectively "*direito à água*", "*direito fundamental à água*" and "*direito humano à água*") from October 1988 (when the Constitution in power was enacted) up to 2018. We chose these keywords, as the intent of this paper is to capture the content given to the right to water by the courts. Although we are aware that our search does not collect decisions that may treat water as a right but do not use these specific expressions, we believe that the use of these expressions is important for the establishment of the right. Moreover, to make sure that no important Supreme Court decision was being left out, for this court only, we also searched for collective decisions containing the keywords in Portuguese that correspond to "water" OR "hydr$" (words starting with "hydr") (respectively "*água*" OR "*hidr$*") for the same period. The "OR" allows to capture any decision containing at least one of the keywords. We went through 625 decisions but could not find a single one articulating a "right to water".

For the Superior Court of Justice, we searched for collective decisions that mention the expressions "right to water", "fundamental right to water", and "human right to water" within the time frame October 1988 to 2018. Only two decisions were found.

Brazil has five federal regional appeal courts and 27 member states' appeal courts. In both federal and member states' appeal courts, we used the same criteria as for the Superior Court of Justice. Three of the five federal regional appeal courts came up with results for these criteria (TRF 2, TRF 4, and TRF 5), with a total of nine decisions. Regarding the member states' appeal courts, the search engine related to three of them (Bahia, Maranhão, and Paraíba) did not succeed in filtering out the decisions containing the selected expressions, and these states were consequently left out. For the remaining 24 member states' appeal courts, our database yielded a total of 114 collective decisions. Decisions in which the main discussion focused on procedural matters and those not related to water were not included in the database.

3. Results and Discussion

We present our findings organised by court. However, before proceeding, it is important to make clear that only decisions from the Federal Supreme Court can have effects *erga omnes*. The Federal Supreme Court acts as a constitutional court in relation to norms in abstract, as an appeal court, and also has original jurisdiction (that is to say, the possibility of acting as a single trial court for specific cases). It is only when this court acts as a constitutional court that the decisions are automatically binding to all other courts. The decisions from the Superior Court of Justice, the Federal Regional Appeal Courts, and the member states' Appeal Courts, in their turn, are binding only for the parties involved in each particular case decided and are not binding even for the same court. However, their decisions may influence and be used as reasoning basis in other decisions. Decisions from the Federal Supreme Court or the Superior Court of Justice can be given relevant argumentative weight.

3.1. Federal Supreme Court (STF)

With regard to the STF, we found no matches for the search expressions "right to water", "human right to water", or "fundamental right to water". This fact is a relevant finding in itself. We then carried out a new search with "water" and "hydr$" (words starting with "hydr") as keywords. Most of the results, however, did not relate to the right to water, and some cases with relevant themes were not accepted for judgment for procedural reasons. Examples of relevant themes are land demarcation and access to water for a *quilombola* community, the use of artesian wells for human consumption, the implementation of a state system of water resources, moral indemnity for failure in the water supply, water scarcity during military training, and agreements for water supply in semi-arid regions.

It is necessary to highlight, nonetheless, that cases that relate to water and are decided, although not mentioning the expression "right to water" in the text, may still influence the legal mobilisation towards the recognition of this right through a binding decision. An example of this is a series of tax law cases discussing the application of the tax on the distribution of goods and services (ICMS) to water supply (textbook case: Extraordinary Appeal, RE-*Recurso Extraordinário* 607.056). These decisions defined the legal nature of water as not being a commodity but, in fact, a "public good"- The decisions state that a commodity would be a movable good, which is subject to commercialisation, and that the Brazilian Constitution defines water as public good for the common use of the people. Therefore, water could not be characterised as a commodity even with treatment and other services. They are the basis for the lawsuit ADPF 680, from May 2020, proposed by the political party *Rede Sustentabilidade* against a presidential decree that excluded water supply and sanitation from the list of services to be considered essential in the context of the COVID-19 pandemic. The political party urged the STF to rule on the essential nature of water supply and sanitation services, using the "right to water" as a key argument. In short, the party claimed that even though the constitution does not contain an explicit right to access water and basic sanitation, in a systematic reading of the constitution, these rights are easily identified by deriving them from the principle of human dignity and the rights to life and health. Both the UNGA 2010 resolution and words from the UN Special Rapporteur on the Rights to Water and Sanitation, Leo Heller, are mentioned in the party's reasoning. Being a case of abstract constitutional review, once the STF makes a decision on it, it automatically becomes binding to all other courts.

With the aim of situating our findings in the Latin American context, we now bring up courts with equivalent powers in other countries in the region.

For carving out an expressly mentioned "right to water", these courts in Colombia, Costa Rica, and Peru rely on constitutional rights, such as the right to a dignified life and to health (including those derived from international commitments), and on national laws, previous water rights decisions from the same court and, to different extents, on international legal sources. Among the latter are the International Covenant on Economic,

Social, and Cultural Rights; the General Comment 15; the Convention on the Rights of the Child; and the Convention on the Elimination of All Forms of Discrimination Against Women [14–16,26–28].

To illustrate which themes have been decided with a reference to the right to water, we briefly present the example of Colombia, where there are decisions from the Constitutional Court establishing reconnection of water supply in case of vulnerability (the court analyses the vulnerability argument case by case); giving priority to children in water provision; and ordering the connection of a house to the public water and sanitation networks [14,18].

In sum, while the Brazilian Federal Supreme Court has not established a right to water in its decisions, thereby differing from courts with equivalent powers in other Latin American countries, the court's understanding that water is not a commodity in tax law cases has been used to push for such recognition, along with the UNGA's 2010 resolution.

3.2. Superior Court of Justice (STJ)

From 1988 to 2018, there are only two decisions from the STJ mentioning the right to water (one mentioning "right to water" and the other one "human right to water"), both of which were issued in 2016. The first one, RESP (*Recurso Especial*, Special Appeal) 1.616.038, concerned a neighbourhood conflict between two private companies over access to a water source for rice crop irrigation. In the Brazilian legal framework, the neighbourhood rights, established in the Civil Code, are linked to the right to property as rules for using the property [29]. According to this decision, the owner of a property has the right to build an aqueduct on the neighbour's land, regardless of the neighbour's consent, to receive water from another property, provided that there are no other means of passing water to the property in question and that there is payment of prior indemnity to the affected neighbour. The decision recognised the access to the water source as a right to water and expressly characterised the right to water as a neighbourhood right that stems from the social function of property. The decision mentions the article 1.293 of the Brazilian Civil Code [30], which establishes that "anyone is allowed to build canals through other people's properties to receive the waters to which one is entitled, indispensable to the first necessities of life (. . .)" (our translation and emphasis). This article is used in favour of a company that needs water for rice crop irrigation. In order to apply this article to the company, the decision characterises water as a public good, meaning that the water belongs to all and that its management must always enable the use by multiple persons.

The second one, RESP 1.629.505, concerns a conflict between a water supply company and a private individual. It addressed the indemnity for moral damages established by lower court instances. The claimant had remained without water supply for five days without any sort of assistance from the water supply company, while she had been informed that the service would be interrupted for 12 h due to maintenance on the water network. In this regard, it is interesting to note that this same problem affected several other people, but, as the case was filed as an individual claim, at least for the decision in question, only one single person was indemnified for moral damages by the water supply company. The court established that this was a consumer relationship, and for this reason, the Consumer Protection Code was applicable to extend the statute of repose to file the case [21] (article 27). When dealing with the merit of the case itself, the 2010 UN Resolution on the right to water was a central argument in the decision, quoted in the following lines: "Now, water is the starting point, it is the essence of all life, being, therefore, a basic human right, which should receive special attention from those who have the task of providing it to the population. It is worth noting that the United Nations, on the 28 July 2010, approved Resolution 64/292, in which the right to drinking water and basic sanitation was recognised as an essential human right" (our translation).

Although the Brazilian Superior Court of Justice has only issued two decisions mentioning the right to water, both of them recognise the existence of the right. One of them states that it is a neighbourhood right drawn up from the Brazilian Civil Code, and the other one uses the UN's 2010 resolution as a core element in its reasoning. As anticipated, these

decisions are not binding to all but have the potential to be given strong argumentative weight and to influence other developments in terms of both stances from courts and legal mobilisation.

3.3. Federal Regional Appeal Courts (TRFs)

In the TRFs, we identified nine decisions that expressly mentioned the right to water in different ways, as explored below.

We considered the right to water as part of the reasoning when the judges used this right as an argument and attributed meaning to it. This happened in three out of nine decisions analysed, of which two were favourable to the right to water. One of these favourable decisions (TRF 4 *Agravo de instrumento* 5003468-44.2014.404.0000) established the duty of providing water supply to an indigenous community. The decision stated that not only must water be supplied, but the provider must also secure its quality and deliver it in a dignifying way. The other favourable decision (TRF 4-*Apelação/reexame necessário*: 5025999-72.2011.404.7100) ordered both the provision of water supply and an indemnity for moral damages to three indigenous communities. It affirmed that water is so essential that it is unnecessary for the right to water to be expressly written in the constitution in order to exist and be recognised as part of the rights to life, health, and dignity.

In another case (TRF 5-*Agravo de Instrumento*: 0805062-16.2017.4.05.0000), however, the expression "right to water" was used in a decision that did not enforce this right. This decision first acknowledged the existence of a right to water to then exempt the water supply company from providing water in water trucks to the community in question as an emergency measure. The argument for exempting the water supply company from providing water supply to the *quilombola* community was that the insufficiency or lack of water supply was common in the region and that the right to water of this *quilombola* community did not differ from that of any other person and vulnerable rural group who also lack access to water. The decision in this case was that, as the community had never before depended on the water supply company for accessing water but used a river instead, although the water from the river now had become polluted and harmful for human consumption, the company would still not be the one obliged to provide water in water trucks as an emergency measure as asked by the claimants. Even though this was not the object of the court case, the decision does not say a word about the environmental problem regarding the polluted river and the consequences to the affected communities.

In three other decisions, the right to water appeared in extracts from the previous decisions in the cases from the individual first-instance judges, which were used to strengthen the decisions' argument. All of these decisions are favourable to the right to water as defined by the cited judge, and their themes are the provision of water supply to an indigenous community (TRF 4-*Agravo de Instrumento*: 0005160-08.2010.404.0000), a company's right to water for industrial purposes (TRF 4-*Apelação cível*: 0000471-55.2001.404.7009), and the rules for producing and using concrete pipes for sanitation and water services (TRF 4-*Apelação cível*: 5068955-06.2011.4.04.7100).

In one of the nine cases, the right to water appeared as part of a brief from the *Ministério Público*. In this decision (TRF 2-*Agravo interno* 0012862-15.2017.4.02.0000), which addressed, among other things, the privatisation of a hitherto state-owned water supply company in the state of Rio de Janeiro, the *Ministério Público* opposed this privatisation and employed the right to water and UN's 2010 Resolution as part of its argument. Although this decision's reasoning does not mention the right to water, we find it important that this right and its international protection is under the *Ministério Público*'s radar and is being used to oppose privatisation.

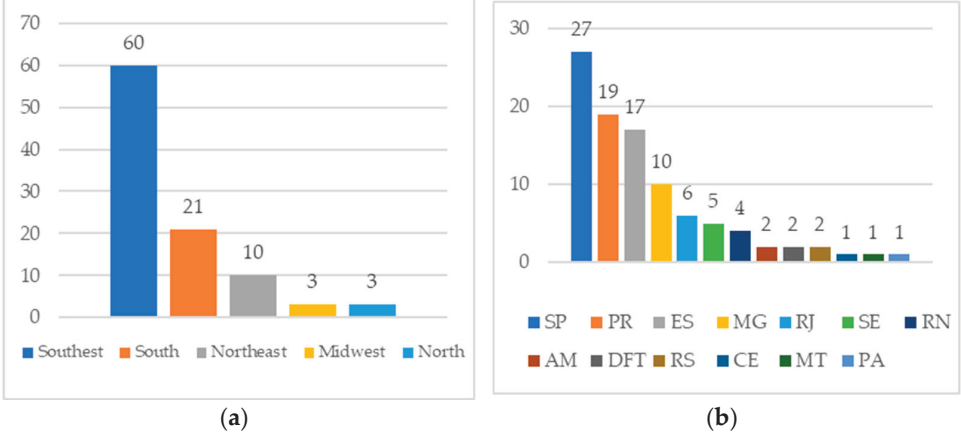
In the two remaining decisions, the right to water appeared in the summary of the claimant's arguments and were not addressed by the courts. For this reason, they were omitted from our study.

Looking at the decisions from the TRFs provides us with information on how the right to water has been used by courts when it comes to the rights of vulnerable peoples, in this

case, the rights of indigenous and *quilombola* communities. Although in one of the cases the decision was contrary to the right to water, the decisions from the TRFs tend to be favourable to the right to water when they use the expression as part of the reasoning or mention other decisions that have done so. Similarly, in Argentina, courts have also played a role in guaranteeing the right to water to communities in vulnerable circumstances [5].

3.4. Member State Appeal Courts

We will now turn to the member states' appeal courts, where we were able to identify 114 relevant decisions. The number of decisions which contain the expressions "fundamental right to water" or "human right to water" is significantly lower compared to the number of decisions containing the expression "right to water", and there are no remarkable differences in the substance of the decisions between one or other expression chosen. Our database includes decisions on individual claims, as well as class actions. This made it possible to draw some conclusions regarding a general view of the judicial recognition of the right to water in Brazil. It is, however, necessary to make clear that there are several differences between Brazilian states and regions. In this section, we work with decisions from 13 out of the 24 appeal courts: São Paulo, Paraná, Espírito Santo, Minas Gerais, Rio de Janeiro, Sergipe, Rio Grande do Norte, Amazonas, Distrito Federal e Territórios, Rio Grande do Sul, Ceará, Mato Grosso, and Pará (see Figure 2). Nine out of the 24 appeal courts did not yield any results for our research parameters, and some of them presented only a minimal number. Two among the 15 that presented results were not explored as explained in the comments to Figure 3. That is to say, not all appeal courts address the right to water by making use of this expression in Brazil, and the ones that do so do not do it to the same extent.



(**a**) (**b**)

Figure 2. (**a**) Number of Decisions per Region; (**b**) Number of Decisions per State.

Most cases were found in appeal courts from states located in the southeastern and southern regions of Brazil, which correspond to the regions with the highest demographic density and Human Development Index in the country [31].

With regard to access to water, while more than 90% of the population in southeastern and southern regions have access to water supply, the numbers for the northern and northeastern regions are 47.6% and 73.4%, respectively [32]. The northeastern region is by far the most affected by water rationing and interruptions in water supply services [32]. Still, only 10 out of 97 cases come from this region (Figure 2a). However, this is not to say that problems related to access to water are not to be found in the southeastern and southern regions, where vulnerable groups, such as those living in irregular land occupations, are hardest affected.

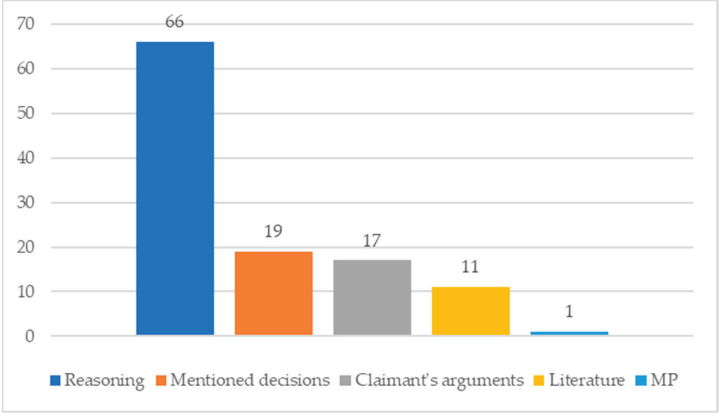


Figure 3. Where in the decision the expression appears?

Further, we verified that the decisions in the database mentioned the expressions "right to water", "human right to water", and "fundamental right to water" in different sections, as presented in Figure 3.

As the figure above illustrates, most decisions mention the right to water in the reasoning, while in other decisions, the right is mentioned in a citation to a previous decision on the same topic (used to strengthen the reasoning), in the summary of the claimants' arguments (but the courts do not respond to this argument in the decisions' reasoning), in a citation to the literature (used to strengthen the reasoning), or in a brief from the *Ministério Público*. As our goal for this paper is to examine how the courts in Brazil develop the right to water, we decided to exclude from this section's figures the 17 cases where our keywords were only mentioned in the summary of the claimant's arguments and not addressed by the courts. That is, if the expression appears only as a citation of an argument from a claimant, the decision does not contribute to the aim of verifying how courts in Brazil construct a right to water. The figures in this section refer to the remaining 97 member state appeal courts' decisions in the database.

Problems related to water supply count for the great majority of cases (Figure 4), and the most frequent topics within the area of water supply are indicated in Figure 5. Rising conflicts around water—often concerning exploitation of water resources and its impacts on local populations and the environment—were arbitrated by the Brazilian courts, but our database shows that the expression "right to water" is hardly ever used beyond water supply-related disputes. It is important to note that one court case can have more than one topic (for instance, disconnection and indemnity for moral damages due to the disconnection). For this reason, the sum of the numbers in the columns for each topic in the figure below (126) is higher than the number of decisions we look at here (97).

The most prevalent issue concerns indemnity for moral damages, the duty to restore the water supply service (mainly related to disconnections due to the lack of payment of water bills), and the duty to provide the service (when the necessary infrastructure is not in place or when the service is not individualised per household). A further frequent topic is the duty to improve the quality of the service. This topic is connected to the performance of the *Ministério Público* since half of these cases (which also represent half of the collective cases in the database) are decisions issued in Public Civil Actions filed by the *Ministério Público* claiming that water supply companies and municipalities must improve the quality and the regularity of the service they provide. These cases are seen in Minas Gerais, Rio Grande do Sul, and Sergipe (representing all the cases from the latter).

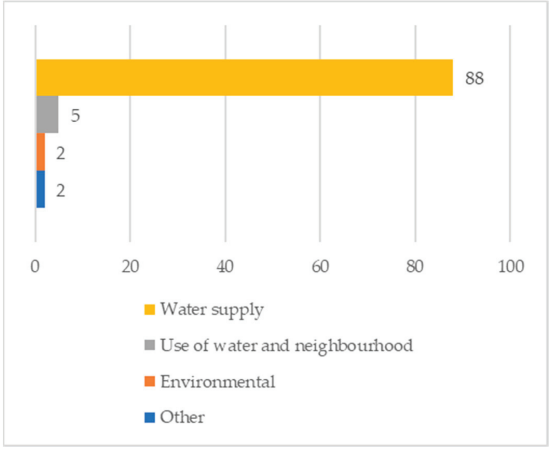


Figure 4. Decisions' topic.

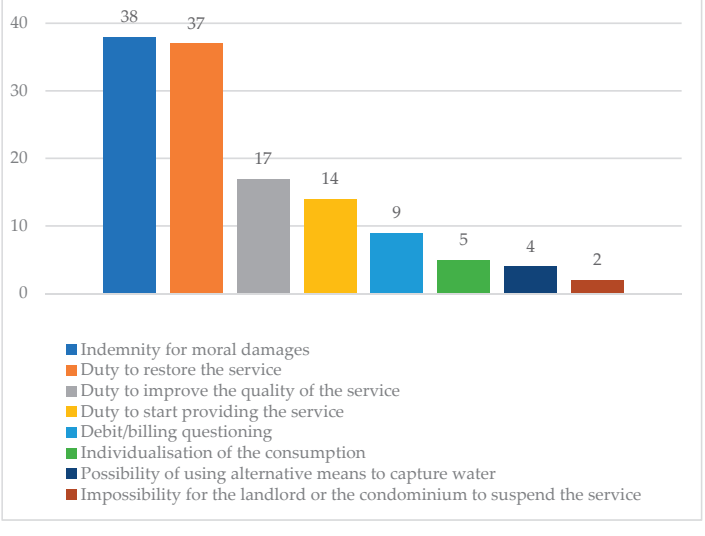
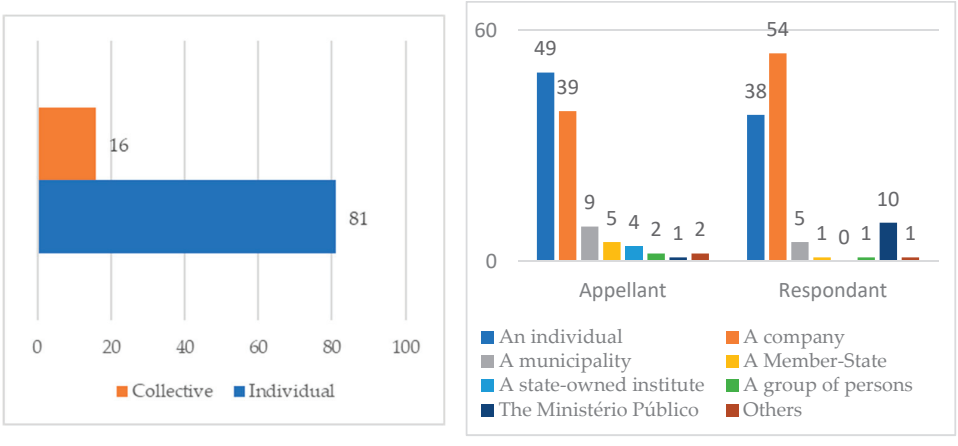


Figure 5. Most Frequent Topics within the area of water supply.

As mentioned earlier, there is a variation among the different states, and this is also reflected here. For example, all cases in the state of Espírito Santo are indemnity for moral damages taken to the courts by individuals who have had their water supply interrupted as a consequence of the rupture of a dam containing toxic substances produced by a mining company. The dam was located in Mariana, a town in the state of Minas Gerais, and its rupture affected the access to water for a large number of people in several towns and cities of the states of Espírito Santo and Minas Gerais. However, the selected decisions protect only the individual rights of those who were affected and who took the case to the courts. These 17 decisions from Espírito Santo claiming indemnity for moral damages, combined with the fact that this claim is frequently made together with disconnection claims and with claims related to the irregular service provision, help us understand why indemnity for moral damages appears as the most frequent topic in Figure 5, present in 38 decisions. These indemnities for moral damages are at the same time punitive, compensatory, and

pedagogical, as to discourage behaviours contrary to the law by water supply companies. Whether these repeated decisions establishing indemnities for moral damages achieve the goal of stimulating water supply companies to provide better services is something to be investigated.

The majority of the cases are individual claims involving an individual and a water supply company, as illustrated in Figure 6. This indicates, as previously identified for the rights to health and education [33], that the right to water has been mostly addressed as an individual right.



(**a**) (**b**)

Figure 6. (**a**) Collective or Individual Claims? (**b**) Parties in conflict.

From now on, we explore how the member state appeal courts adjudicated the claims and the content given to the right to water (Figure 7).

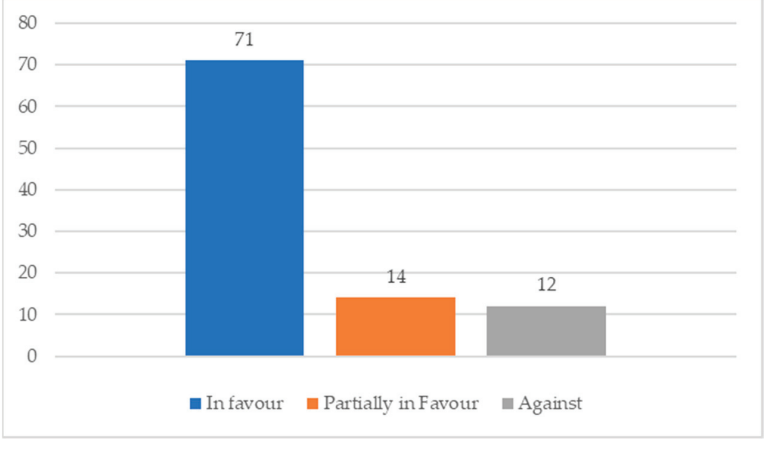


Figure 7. How the court has adjudicated the claim?

As Figure 7 indicates, most decisions were in favour of the right to water as defined by the court. We decided to classify the decisions as in favour, partially in favour, or against regarding the protection of the right to water as defined by the court because to classify the decisions as favourable or against the claim could lead to confusing results depending on

who the claimant is. We have not, however, defined the right to water or made any value judgement about the courts' definitions. We state that our study does not give a sufficient basis to establish whether there is any strong connection between the use of our keywords and more favourable decisions. Such assessment would require a larger number of relevant cases as well as comparison between decisions on the same matter, where a group of them contain the selected expressions while the other one does not contain these expressions. Although this would be an important exercise, it is not within the scope of this study.

An interesting finding is that, in the case of São Paulo, the member state appeal court with the highest number of decisions in the database (27), one single chamber (out of a total of 38 chambers that could rule on this case) was responsible for issuing 17 decisions that contain our keywords. Here, we highlight that this is not due to the specialisation of this chamber on the matter. Two reporting judges drafted 17 of the selected decisions, and only one of these judges used the expression "right to water" in the reasoning of the 12 decisions reported by him to establish that "the right to water is part of the contingent of the so-called fundamental rights, such as the right to life, health, and the dignity of the human person" (our translation). Further, we identified that the first decision reported by this particular judge in our database is from 2007, and since then, dealing with different topics, he used precisely the same text in all decisions until his last decision in the database issued in 2017. In other words, almost half of the decisions from the TJSP containing our keywords were drafted by one single judge who was convinced about the existence of a right to water since 2007, and his way of writing the reasoning for his decisions on this matter has not changed over time, even when this right has been given stronger protection in the international arena.

According to most of the cases we found in member states' appeal courts, the right to water means, in short, the right to water supply provision (even when, in individual cases, the ownership of the household or of the land where the household is built in is not proven), the individualisation of consumption, and the right not to have the service disconnected due to old unpaid water bills. A water bill is considered old when it does not refer to the actual month of consumption. As an example, we can mention a decision from the member state of Ceará (TJCE. *Agravo de Instrumento* 0623004-48.2018.8.06.0000) that refers to a bill from August as old when the disconnection happened in November that same year.

We identified that the water supply companies' denial to build the needed infrastructure for the provision of the service is in some cases based on municipal requirements establishing that the individual should be able to prove ownership of the household. This happens despite reiterated decisions by the appeal court in question establishing that access to water cannot depend on ownership titles. These decisions are particularly important in relation to vulnerable people living in irregular occupations and those who, due to bureaucratic and costly procedures, do not have the title of their property.

Moreover, also according to reiterated decisions, water supply debts are connected to the individual and not to the property, and being so, debts from a previous owner do not restrict the property in any way. As our data shows, this is also often ignored by companies, therefore leading, in our opinion, to a need for judicialisation.

In Argentina, a decision issued by the Supreme Court of the Province of Neuquen, which explicitly mentioned the right to water, established the provision of water to Valentina Norte Colony's inhabitants despite the lack of title. This decision cited the Constitution as well as the Convention on the Rights of the Child and principles of international human rights law [13,14].

As a general rule, the fact that the right to water is mentioned in the reasoning of the decisions in Brazil does not prevent disconnections when debits of water bills are recent, but there are several cases where the extreme vulnerability of the debtor resulted in decisions that establish the impossibility of disconnection due to non-payment of water bills without mentioning if they are recent or not. This resonates with Haglund's [12] findings in an extensive study on water-related decisions in the São Paulo State appeal court focusing

on cases involving basic services in the city of São Paulo, in which individual plaintiffs had demonstrable financial need. Haglund found that "the vast majority of judges handed down rulings that reflected a substantive view of state responsibility to ensure that basic human rights are respected where poverty is present, despite the formal contractual legality of cut-offs". Other studies indicate that disconnections of the poor for non-payment of water-bills were unlawful in Argentina, Brazil, Colombia, and Venezuela [16,27,34]. Leo Heller, the Special Rapporteur on the Rights to Water and Sanitation (2014–2020), argues that "water cuts due to economic disability to pay are strictly prohibited in the human rights framework, as they constitute a stepping stone, therefore, incompatible with the principle of progressive realisation of rights" [35] (our translation).

Here, we point out that although social tariffs have been applied, mostly aimed at low-income populations, sometimes the requirements established by municipalities, regulatory bodies, and both public and private water supply companies (such as the need to prove ownership over the property) make this type of tariff unviable for the most vulnerable. The law that establishes the national guidelines for basic sanitation (Law 11.445/2007, modified by the Law 14.026/2020) sets as one of the goals of regulation to ensure reasonable tariffs (article 22, IV). Further, the law establishes the cases in which the services may be interrupted by the provider, one of them being the default of tariffs by the user. The law also establishes that the interruption or restriction of the water supply due to default of tariffs by low-income residential users benefiting from a social tariff must comply with deadlines and criteria that preserve minimum health maintenance conditions of the people affected (article 40, V, § 3). However, these criteria are not defined by law. There is a bill in process before the National Congress to create the social tariff for water and sanitation (Bill 9.543/2018). It is true that the courts alleviate the situation of those who file a case, but we have not seen in our database any decision dealing with abusive requirements which could benefit an entire population under the same circumstances. Another important point to make is that the Consumer Protection Code (Law 8.078/1990) does not exempt the consumer from paying for the services they use and that there is no law at the federal level establishing a minimum free water amount per individual per day. Further, the law that regulates the concession and permission regime for the provision of public services allows the suspension of the services due to non-payment of consumption debts on the condition that the consumer is previously notified [36] (article 6, § 3, II). According to the law, the suspension of the services due to non-payment takes into consideration the interest of the community. At the same time, another article from the Consumer Protection Code stipulates that public bodies are required to provide continuous services when they are essential [21] (article 22). The main arguments in reasoned decisions against disconnections due to the lack of payment of water bills, are that (i) water supply companies have other means to make the consumers pay for their debts, (ii) water supply is different from other services (as for instance telephony and electricity) since water is essential to life; and (iii) the law that established the national water resources policy states that water is a public good.

We now turn to the most frequent pieces of legislation used by the member state appeal courts in the decisions' reasoning, which are illustrated in Figure 8 below. Again, the number of references is higher than the number of decisions (97) because the same decision can refer to more than one legal norm. Moreover, there are 27 decisions that do not refer to any law. However, an interesting fact is that, among the latter, 18 mention the UN resolutions. We will return to this point later on.

The most frequently mentioned norm in the decisions from member state appeal courts was the Constitution [19]. When other rights and principles are mentioned as reasoning for the decisions, the prevalent ones are the constitutional rights to health, life, and housing and the principle of human dignity, as indicated in Figure 9.

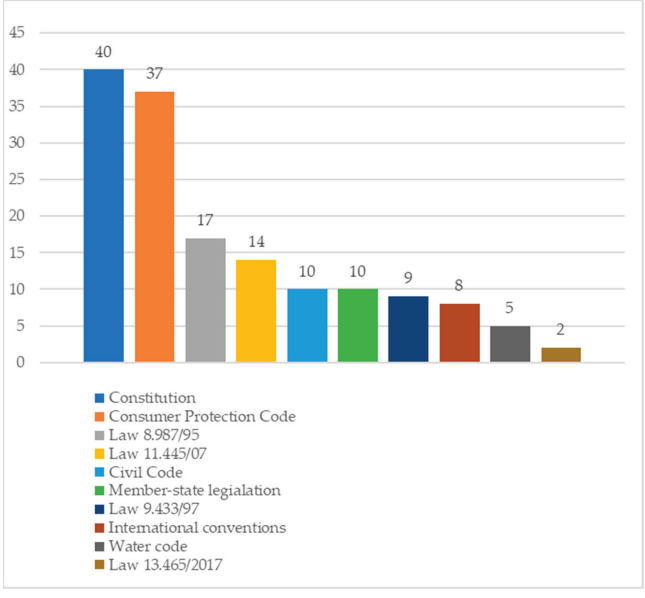


Figure 8. References to legal norms.

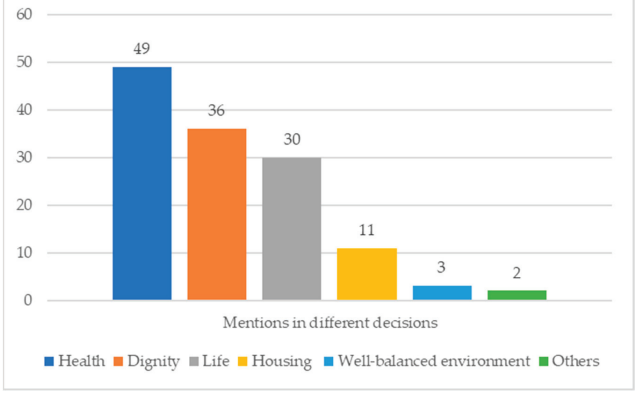


Figure 9. Rights and principles mentioned.

However, one of our findings is precisely the low number of decisions that employ rigorous legal arguments. Another study exploring right to water case law from several jurisdictions concludes that "if anything, national case law exhibits a certain immaturity in its conceptual defense of the right to water. Most judgements reference the right to water in vague, general terms, failing to outline its content and obligations conclusively" [14]. Even for the case of Colombia, where the Constitutional Court has issued decisions with clear orders and even determined the creation of monitoring system to assess the impact of measures taken [18], this does not mean that the court's decisions on the right to water do not entail contradictions [16].

Our database contains several decisions that simply mention the right to water as part of other constitutional rights and go from there to the adjudication without providing further arguments. Often, what is mentioned is the essentiality of the water supply service in general or in relation to health and life and that water public policy is a determinant

of health. Here, we note that references to other rights and principles are not something particular to the right to water due to the lack of constitutional protection. As Hoffman and Bentes [33] pointed out, even in cases specifically related to the right to health, which has constitutional protection and is justiciable, Brazilian courts have usually relied on a variety of constitutional provisions, particularly the right to life.

Further, despite the existence of constitutional provisions that explicitly establish a freestanding right to water in various state constitutions, such as in Amazonas, Mato Grosso, and Paraná, these have nevertheless not been referred to in any of the decisions from these states.

When it comes to the references to the Consumer Protection Code [21], which is the second most frequently mentioned norm, the courts define users of public services, which include water supply, as consumers who are given the protection established by the code regardless of who provides the service, be it a public or private company. The code's most frequent article in the decisions in our database is one that stipulates that public bodies are required to provide continuous services when they are essential [21] (article 22), as for the case of water supply. The second most frequent article (article 6) establishes the consumer's basic rights. The code also gives a strong protection in the event of faults in service provision as well as inadequate information given by the service provider, when consumers have the right to compensation for damages, both material and moral [21] (articles 14 and 22), with an extended statute of repose to file the case in comparison to the one established by the civil code [21] (article 27). This helps understand the high number of cases where indemnity for moral damages is the most frequent topic within water supply, as shown in Figure 5.

The two other most frequently mentioned norms are the Law 8.987/95 [36] on the regime of concession and permission for the provision of public services and the Law 11.445/2007 [37], which established the national guidelines for basic sanitation. They appear together in seven out of the 20 decisions from the state of Paraná that establish the water supply companies' duty to provide regular and continuous services (Law 8.987/95 [36] article 6, and Law 11.445/2007 [37]; articles 2, 3, and/or 40). All these cases are related to frequent interruptions of water supply that are not in accordance with the hypotheses established by law. As for the case of São Paulo, all decisions that refer to the Law 8.987/95 [36] mention the article that allows the interruption of public services in case of default by the user (article 6, § 3°, II) to then say that this article is not applicable in the specific case of water supply, considered an essential service for human life. In other words, the service cannot be interrupted as a way for the company to get the payment of debits.

Our database points to an increase in the number of decisions referring to the right to water after 2010. As Figure 10 indicates, 89 out of 97 decisions that mentioned the right to water were issued from 2010 onwards.

What the figure does not tell us are the reasons for this increase. We identified in our database that 17 out of the 36 decisions for 2018 are the cases from the member state appeal court of Espírito Santo. These were filed in 2016 by individuals claiming indemnity for moral damages for service interruption as a consequence of the rupture of a dam containing toxic substances produced by a mining company, as mentioned in the comments to Figure 5. In any event, the number of remaining decisions for the year of 2018 (19) is higher than in previous years, so it is fair to say there has been an increase. However, although our database does not allow us to establish the causes of this, we see that this pattern coincides with urban expansion and poor urban planning combined with a trend of more judicialisation of such matters in general. Further, the stronger international protection and attention given to the right to water in the last two decades may also have a role to play, to be explored in the comments to the figure below.

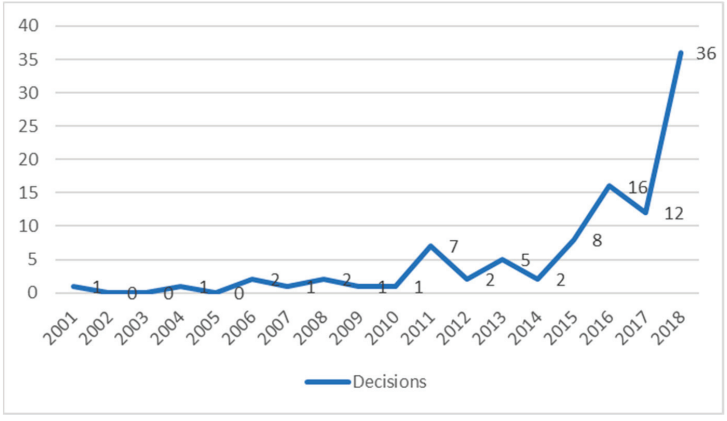


Figure 10. Number of decisions mentioning a right to water over the years.

As Figure 11 indicates, the increase in the number of decisions referring to the right to water in Brazilian member state appeal courts coincides with an increase in the number of decisions referring to the UN's resolutions establishing a freestanding right to water.

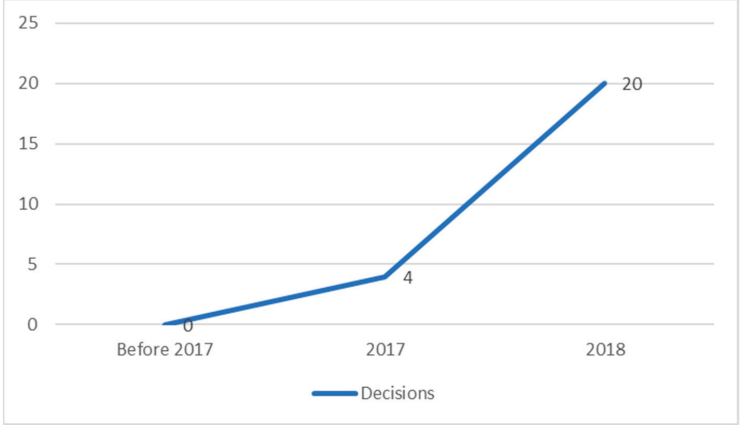


Figure 11. References to UN's Resolutions over the Years.

The first decisions in our database containing references to the UN 2010 resolutions on the right to water were issued in 2017. We found, in total, 24 decisions that mention these resolutions out of 89 decisions in the database issued after 2010. We also observed that these references are concentrated; that is, they are only seen in decisions from four appeal courts (Espírito Santo, Minas Gerais, Paraná, and the Federal District). Among these, all the 17 cases from Espírito Santo, which are based on the UN 2010 resolution, deal with the same matter (indemnity for moral damages), are from the same town, were drafted by only two reporting judges from the same chamber, and were issued in 2018. This allows us to state that an explicit reference to the right to water as an international human right has not usually been part of the legal reasoning of decisions in Brazil.

Our study allows us to say that the member state appeal courts have until now been the most fertile arena for the development of a right to water through court decisions in Brazil. They have done this in different ways and to different extents, which reflects not only the disparity between Brazilian member states but also the construction of a

right through decisions without previously established parameters. Even so, an important finding is that most of the cases are individual disputes, and most of the decisions have been favourable to the right to water as defined in the ruling, and the right to water is usually derived from rights expressly guaranteed in the Constitution. Moreover, the references to a right to water are increasing in number: 89 out of 97 decisions were issued after 2010.

4. Conclusions

Brazil has in recent years seen a construction of the right to water in the member states' appeal courts, the federal regional appeal courts, and the Superior Court of Justice. Still, references to such a right have not yet been observed in the Federal Supreme Court, in which the country differs from equivalent courts in other Latin American countries.

We found that the development of the right to water in Brazil has not happened in the same way in the various states and regions and that it is difficult to track whether the protection of this right on the international arena has influenced Brazilian courts.

The Brazilian Constitution does not enshrine a freestanding right to water, and the arguments to guarantee this right found in our database's decisions frequently rely on constitutionally protected rights, such as the rights to life and health, and on the principle of human dignity. The Consumer Protection Code [21] is also often used as legal basis for the decisions.

As is common in jurisprudential developments of rights and principles, it is not possible to state parameters for definition or application. We can, however, say that the number of decisions mentioning a "right to water" has increased over the years as well as the number of decisions referring to the UN resolutions on the right to water. Additionally, we can say that this right has been applied most frequently in disputes related to access to water by individuals against water supply companies.

Recurring topics in decisions from the member states' appeal courts are indemnity for moral damages, the duty to restore the service (or the right not to have the service disconnected due to old unpaid water bills), the duty to improve the quality of the service, as well as the duty to water supply provision (even when, in individual cases, the ownership of the household or of the land the house is built on is not proven).

When it comes to the question of whether those in need have their rights protected by the courts, we have seen that courts take into consideration arguments of extreme vulnerability to establish the impossibility of disconnection due to non-payment of water bills. In this regard, our findings are similar to what is seen in other Latin American countries, such as Argentina, Colombia, Costa Rica, and Peru. The key difference is that in these countries the right to water has been also established by Constitutional Courts.

The federal regional appeal courts are where all collective cases involving indigenous peoples and *quilombola* communities are to be found, and all the cases related to these vulnerable groups were taken to court by the *Ministério Público*. Apart from one case, all of them had favourable decisions establishing the duty of water companies to provide water supply. Our database indicates the relevance of the *Ministério Público* in contributing to a definition of a right to water by appeal courts as claims by the institution go beyond access to water to also encompass requirements regarding quality and dignity.

Further, the two decisions issued by the Superior Court of Justice that establish a right to water—one of them as a neighbourhood right aiming for crop irrigation and not only as a right to water supply and the other one referring to the UN's 2010 resolution as a core element in its reasoning—can be given relevant argumentative weight and influence the construction of the right in the years to come.

In the absence of decisions that face the definition and characterisation of a right to water from the Federal Supreme Court, the court that is responsible for giving the last word on the interpretation of the constitution, we can say that the two decisions by the Superior Court of Justice and the construction made by the lower courts is what we presently have when discussing the judicialisation of the right to water in Brazil. However, since the

constructed right to water is mostly referred to in individual disputes, it has not succeeded in contributing substantially to the standardisation of meaning and what such a right might possibly entail in a wider context.

Although there are no decisions establishing a right to water by the Federal Supreme Court, there is legal mobilisation before the court with an explicit right to water language building both on decisions on tax law cases, which state that water is not a commodity, and on the UNGA's 2010 resolution. As we have seen, international instruments are an important source in the construction of the right to water by courts in other Latin American countries. The litigation strategy in Brazil could eventually lead to the recognition of the right to water on a national level if the court at some point faces the argument that the right to water is implicitly present in the Brazilian constitution of 1988.

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Article

Water Rights in a Time of Fragility: An Exploration of Contestation and Discourse around Cape Town's "Day Zero" Water Crisis

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Abstract: South Africa is an interesting case study on the right to water. It is an upper-middle income country with a history and current reality of extreme racialised inequality, including the water services sphere. It is water scarce, and during 2018, Cape Town was expected to be the first major metropolitan city in the world to run out of water. South Africa has one of the most progressive constitutions in the world, which incorporated socio-economic rights including the right to water as explicitly justiciable long before the international right to water was recognised. However, despite clear water-security and water-equity fault lines on the one hand and conducive legal frameworks on the other hand, there has been relatively little water rights contestation in post-apartheid South Africa. It is this paradox and, in particular, how it played out in the clear case of water insecurity in Cape Town's "Day Zero" crisis that are the subjects of examination in this article. Aiming to make an original contribution to the scholarship on the "Day Zero" crisis by exploring it from the perspective of interlocutors and those affected by it, this article also hopes to contribute towards a better understanding of the nature and application of water rights more broadly.

Keywords: Cape Town Day Zero; water rights; water scarcity; water-justice; water-governance; inequality; South Africa

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1. Introduction

South Africa is an interesting case study on the right to water. It is an upper-middle income country with a history and current reality of extreme racialised inequality, including the water services sphere. It is water scarce, and during 2018, Cape Town was expected to be the first major metropolitan city in the world to run out of water [1,2]. In the end, Cape Town threatened that "Day Zero" did not materialise largely due to the City's unprecedented reduction in water consumption by 50 percent. Nonetheless, the threat of running out of water remains present in Cape Town and across South Africa.

South Africa has one of the most progressive constitutions in the world, which incorporated socio-economic rights, including the right to water, as explicitly justiciable long before the international right to water was recognised. South Africa has also ratified the International Covenant on Economic, Social and Cultural Rights (ICESCR) [3]. However, despite clear water-security and water-equity fault lines on the one hand (demand side) and conducive legal frameworks on the other hand (supply side), as outlined in Section 1.1, there has been relatively little water rights contestation in post-apartheid South Africa. It is this paradox and, in particular, how it played out in the clear case of water insecurity in Cape Town's Day Zero crisis that are the focuses of examination in this article. Through this examination, the article reflects on some of the key themes of the Special Issue, particularly the nature of the right to water and how this articulates with contextual factors, including legal opportunity structures.

Echoing the approach of Nick Shepherd, this article pursues the case study of South Africa in general and Cape Town specifically not as exceptional cases but rather the opposite: In South Africa, a set of dynamics and socio-economic, as well as climactic, trends

that pertain in many cities in the world "are presented with an unusual directness and intensity" [4] (p. 1744). The notion of South Africa as an avatar of the intensification of global trends was powerfully posited by Jacques Derrida in the mid-1980s. Understanding apartheid as the recognisable outcome of social, economic and political forces present in Europe at the time, Derrida's answer to the question "What is South Africa" is that it is a "concentration of world history" [5] (p. 297).

Arguably, Derrida's assertion is equally true in post-apartheid South Africa, characterised by increasing inequality within a neoliberal and climate-vulnerable socio-economy. The state of intensified inequality juxtaposed with progressive human rights architecture makes South Africa a "useful prognosticator of future trends and developments" as much as it is a "crucible of the past and future" [4] (p. 1744). Cape Town is a compelling focus within the South African exemplar not only because of its concentrated inequality but also because although it was the "world's first metropolis to confront such a fate" in the era of climate change, it will "not likely be the last city to face unprecedented water shortages" [6].

Aiming to make an original contribution to the scholarship on the Day Zero crisis by exploring it from the perspective of interlocutors and those affected by it, the article also hopes to contribute towards a better understanding of the nature and application of water rights more broadly. The article proceeds in six subsequent steps. First, in Section 1.1, the article considers the dimensions of the relative absence of water rights-related contestation in South Africa. Following a methodological explanation of the research study (Section 2), in Section 3, the article overviews the context of Cape Town's Day Zero water crisis (August 2017 to June 2018). Section 4 presents the results of the research by exploring the dominant framings and explanations of the crisis. In Section 5, the article revisits the water rights analysis in the light of the findings from empirical research, drawing some tentative conclusions (in Section 6) about the nature of the right, the good it enfolds and the wider applicability of the South African case study in the context of an increasingly fragile world.

1.1. The Curious Case of the Relative Absence of Water Rights Contestation in South Africa

Since 1994, and certainly during the three-year period of review for this research study (July 2017 to July 2020), there has been relatively little water rights contestation in South Africa. This is my observation as a water rights activist and academic since 2004, which is confirmed by all water rights activists and lawyers interviewed as part of this research study. The relative paucity of water rights contestation is particularly evident in the low number of water rights cases compared, for example, with housing rights cases as detailed below.

In trying to unpack why there has been relatively little water rights contestation, two preliminary logical questions arise: first, whether this relative absence is a function of there being no water-related problems (demand side); and second, whether there are no opportunities for water rights contestation (supply side). However, before delving into these questions, it is worth briefly discussing the extent of water rights contestation by first looking at contestation in the form of protest and, thereafter, contestation in the form of litigation.

Starting around 2004, South Africa has experienced a rolling wave (with intermittent ebbs and flows) of "service delivery protests" in townships and informal settlements around the country [7] (p. 25). Typically related to failures of local government basic services including water (in South Africa, the reticulation of water services is a local government mandate), as well as corrupt municipal administration, these protests have equally surfaced deepening frustrations about socio-economic inequality and exclusion and political unresponsiveness to this situation. As argued by Richard Pithouse, the protests can best be understood to be about "the material benefits of full social inclusion . . . as well as the right to be taken seriously when thinking and speaking through community organisations" [8]. Moreover, in the words of South Africa's shack-dweller social movement, *Abahlali base Mjondolo* says the following: "But we have not only been sentenced to permanent physical exclusion from society and its cities, schools, electricity, refuse removal

and sewerage systems. Our life sentence has also removed us from the discussions that take place in society" [9].

One of the few studies that has attempted to disaggregate service delivery protester grievances found that the highest articulated concern among protesters is related to housing (36.33 percent); after housing, the highest expressed concerns were access to water (18.36 percent), access to electricity (18.16 percent), poor service delivery in general (15.62 percent) and sanitation (13 percent) [10] (pp. 29–30). Thus, although sometimes intersecting with problems over local services, to date such protests have not been primarily framed as a water rights issue but rather as a demand for a more responsive and inclusive local democracy.

Interestingly, in September 2020 in the wake of the SARS-CoV-2/COVID-19 pandemic, a coalition of civil society organisations launched a campaign to "ensure acceptable quality water is made available to the most vulnerable communities as a matter of urgency". While highlighting issues of municipal governance and corruption, in their plea to obtain government acknowledgement, the campaigners have underscored that "the right to adequate drinking water is guaranteed under the Constitution" and "access to clean water is a human right" [11]. It is still too soon to assess the work of the campaign and the traction of the water rights frame within it. However, the emergence of such a campaign might indicate that water rights are most cogent as a part of rallying rhetoric and mobilising repertoires as opposed to specific acts of protest or litigation, which have tended to be pursued along alternative pathways than the right to water.

Turning to water-related cases, surprisingly, only a few water-related cases since the right to water was entrenched in section 27(1)(b) of the 1996 Constitution have occurred (Constitution) [12]. Two separate unpublished sources from 2018 place the total number of water cases at around 25 cases. The one source is a list of cases compiled (and kindly emailed to me) by Professor LaDawn Haglund from Arizona State University as part of a comparative research project on water rights litigation around the world. The other source is a list compiled for this article by researcher Natasha Salant.

Although the number and identified cases on the two lists align almost exactly, it is possible that there are a few more than or a few less than 25 relevant cases in the post-apartheid era, depending on how wide the net is cast regarding the water-related relevance of cases. Regardless, the point is that there have been relatively few water-related cases since the entrenchment of the constitutional right to water in South Africa and even fewer that directly engages with the right to water. Comparatively speaking there are, for example, many more housing rights cases than water rights cases at all levels of the court and especially at the Constitutional Court [13]. In the research for this article assisted by researcher Nicola Soekoe, we listed all the socio-economic rights cases (cases that turned on the constitutional rights to the environment, land, housing, property, education, health, water, food, social security and municipal services) that have been heard by the Constitutional Court between 1994 and 2020. Of the 74 cases we identified, only one relates to the right to water, whereas 24 relate to the right to property, 23 relate to the right to housing and 10 relate to the right to land.

Furthermore, if administrative-type water license and water resource protection cases that do not involve water rights and/or claims over access to water services by households or communities are excluded, the number of relevant cases across the courts is even lower. By my count, there are only six cases that have engaged the right to water, whether domestic or international. Furthermore, by all counts, only one water rights case has been heard by the Constitutional Court, which is the 2009 case of *Mazibuko and Others v The City of Johannesburg and Others* (*Mazibuko*) [14]. *Mazibuko* was an unsuccessful legal challenge by impoverished Soweto residents against the imposition of prepayment water meters, which automatically disconnected their water supply following the exhaustion of the inadequate Free Basic Water amount each month.

Prior to *Mazibuko*, there were two water rights-related cases at the high court level. The first one is the February 2001 Durban case of *Manqele v Durban Transitional Metropolitan*

Council [15], which was an unsuccessful early water rights case challenging the sufficiency of the amount of water available to an impoverished resident, brought before relevant standards for water service provision had been enacted. The second case was the September 2001 Johannesburg case of *Residents of Bon Vista Mansions v Southern Metropolitan Local Council* (*Bon Visa Mansions*) [16]. Based on the constitutional guarantee to water in section 27(1)(b) of the Constitution [12], *Bon Vista Mansions* established that the disconnection of a prior water supply by the municipality is a prima facie violation of the right to water that the municipality must justify.

Following *Mazibuko*, there have been three water rights-related cases. In 2011, in *Mtungwa and Others v Ekurhuleni Metropolitan Municipality* [17], the South Gauteng High Court (Johannesburg) ruled in favour of the residents of three informal settlements in Langaville (Ekurhuleni), ordering the municipality to provide basic water and sanitation services as mandated by the Constitution and related legislation. In the 2012 case of *The Federation for Sustainable Environment and Others v The Minister of Water Affairs and Others* [18], the North Gauteng High Court (Pretoria) ruled in favour of residents from informal settlement and township areas adversely impacted by acid mine drainage from a nearby mine, ordering the municipality to provide potable water within 72 h. Most recently, in July 2019, the KwaZulu-Natal High Court in Msunduzi sided with the farm-dweller applicants in the case of *Mshengu and Others v Msunduzi Local Municipality and Others* [19], which addressed the critical issue of access to potable water by farm-dwellers, establishing that the state has a duty to provide basic water across private land, and farm-owners cannot reasonably refuse this intrusion.

From the above, it is apparent that, although water has featured as a grievance in widespread intermittent 'service delivery' protests, water is usually not the main grievance in these protests, and typically any problems related to water have not been pursued primarily as water rights issues. Even more strikingly, there has been hardly any water rights-related litigation. Thus, returning to the two logical questions posed: are there no water-related problems, and/or are there no opportunities for water-related contestation?

1.1.1. Are There No Water-Related Problems?

South Africa has made notable progress in terms of advancing access to water since 1994, when 12 million South Africans (33 percent of the population at the time) did not have adequate access to clean drinking water [20] (para. 2.6). Just over twenty years later, in 2016, 89.9 percent of households had access to piped water; of those with access to piped water, 44.4 percent had access to water inside their dwelling, 30 percent inside their yards, 1.9 percent from a neighbour and 13.5 percent from a communal tap [21].

However, as highlighted in a 2018 joint civil society shadow report to the United Nations Committee on Economic, Social and Cultural Rights (CESCR) ahead of its 64th session (24 September to 12 October 2018), these achievements "obscure profound inequalities" in water services provision [22] (p. 27). In particular, the report indicates that access to a reliable, safe and convenient water supply is largely determined by settlement type, with rural municipalities still experiencing significant water services-related backlogs and disconnections, as well as unsafe drinking water [22] (p. 27). Across the country, many informal settlement and farm dwelling households continue to experience inadequate access to water [22] (p. 27) In addition, many low-income and no-income households are unable to afford water tariffs beyond the Free Basic Water amount (which is often inadequate for meeting a household's basic water needs, especially in multi-dwelling households, and typically entails undignified registration as an indigent). Interviews with key water rights activists (some from the non-governmental organisations that compiled the 2018 shadow report mentioned above) as part of this research in Johannesburg in January 2019 confirmed that these problems persist [23–26], shifting the inquiry to the second question of whether the relative absence of water rights contestation relates to a lack of opportunity structures.

1.1.2. Are There No Opportunities for Water Rights Contestation?

South Africa's post-apartheid legal frameworks and structures, as well as the experience of broader socio-economic rights litigation since 1994, clearly indicate that there are ample opportunities for water rights contestation. South Africa has expansive water rights-oriented legislative and constitutional provisions. Apart from the Constitution's section 27(1)(b) guarantee of the right to have access to "sufficient water" [12], there is an extensive rights-based water services legal framework set out in the Water Services Act [27]. Section 2(a) of the Water Services Act establishes a range of minimum parameters for water services provision primarily aimed at advancing the right of access to a "basic water supply" [27]. These include provisions in section 4(3) of the Water Services Act to ensure that no one has their water supply limited or discontinued for reasons of inability to pay for water and that any limitation or discontinuation must be procedurally fair [27]. Regulation 4 under the Water Services Act establishes that a "basic water supply" comprises the following: a minimum amount of potable water of 25 L per person per day or 6 kilolitres per household per month; within 200 m of a household; at a minimum flow rate of not less than 10 L per minute; and no consumer is left without water supply for more than 7 full days in any year [28]. South Africa also has a national Free Basic Water policy aimed at ensuring that households that cannot afford water tariffs can access the regulated "basic water supply" of 6 kilolitres per household per month for free [29]. All post-apartheid expansion of water services has occurred against the backdrop of these domestic rights-based legal frameworks. This is not to suggest that the international right has no influence. Indeed, the CESCR's General Comment no 15 on the right to water [30] was relied on by the applicants in the *Mazibuko* case in order to motivate an increased quantity of water. However, in the South African water rights cases, as well as water-related protest, the domestic right is the primary orienting framework.

Within conducive domestic frameworks, as alluded to above, socio-economic rights claims are regularly litigated, with the applicants having won almost all the cases, especially at the Constitutional Court [31] (p. 241). Yet only one water rights case, *Mazibuko*, has ever come before the Constitutional Court. Moreover, *Mazibuko* is one of only two Constitutional Court socio-economic rights cases in which impoverished applicants lost their case on all grounds. There is not enough space here to discuss the possible reasons for the judicial defeat, which have been analysed elsewhere [32,33]. What is significant is that when asked during this research study whether it is likely that *Mazibuko*'s judicial outcome has had a dampening effect on water rights litigation, the public interest lawyers I spoke to argued that it did not have such an effect [23,24,34], while the former Constitutional Court judge interviewed suggested that it had [35], indicating an angle for further research.

Regardless of whether *Mazibuko* had some chilling effect, as outlined above, there have been two water rights cases before *Mazibuko* and three subsequent water rights cases. These cases suggest that the relative absence of water rights litigation cannot be fully, if at all, explained through a lack of opportunity structures. Furthermore, as protected by section 17 of the Constitution's right to peaceful protest [12], there has been a degree of water-related protest over the years, although, as set out above, much of this has been integrated into protest over municipal service delivery more generically, and protest over water and/or basic services is still relatively low compared with housing rights-related protest.

Thus, if there are issues and opportunities, why has there been so little water rights contestation in post-apartheid South Africa? Methodologically, it is hard to investigate a negative. In order to try to understand the absence within the objective of contributing towards knowledge about water-rights claiming in South Africa and more broadly, I, therefore, looked for a clear example of a water-related problem over which there had been some contestation (including limited protest but no litigation) in order to see how, if not as a water rights issue, it had been framed; how it unfolded; and how affected or interested groups explained it. During the period of my research, one clear site of inquiry emerged—that of the Day Zero water crisis in Cape Town.

2. Materials and Methods

In order to examine how the crisis was framed and explained other than a water rights issue, my examination comprised two main components. First, an analysis of all free online English media reports on "Day Zero" and "Cape Town water crisis" between January 2017 and August 2018, along with relevant literature and reports, was conducted. For the online media reports, these were collated and analysed in terms of their dominant framing and whether they mentioned the right to water, whether domestic or international, or any other right. There are obviously limitations to having reviewed only online free media articles. However, there is no reason to think that print media and/or subscription-based media articles would have a fundamentally different focus regarding Day Zero or water rights.

Secondly, I undertook qualitative interviews with 30 key stakeholders in Cape Town and elsewhere between January 2019 and February 2020. The groups of people interviewed were as follows: the residents of one of Cape Town's richest suburbs, Constantia; residents from Khayelitsha, a partially informal township near Cape Town's airport; academics; non-governmental organisations; lawyers; government officials; and a Constitutional Court judge.

This research was not quantitative, and it does not claim to be representative. Rather, it was a qualitative exercise to elicit responses from affected residents and relevant actors regarding how they experienced and perceived the crisis. Having secured ethical clearance from the University of the Witwatersrand and permission from the City of Cape Town to undertake government interviews, I obtained informed consent to use and to cite the names of all participants (apart from one environmental lawyer who preferred to remain anonymous). Nonetheless, I have not used the names of the participants from Khayelitsha, who may be potentially vulnerable to reprisal for non-payment of water bills, etc.

For the interviews with Cape Town residents from Constantia and Khayelitsha, a semi-structured questionnaire was used that asked, open-endedly, how the interviewee understood and experienced the crisis; thereafter, I probed whether they viewed it as a water rights issue. The residents from Constantia were identified by contacting the relevant ratepayers/residents association. Engaging Khayelitsha residents entailed using two trusted interlocutors who worked in the area and walking around two separate parts of Khayelitsha over two different days, asking residents if they were willing to discuss the Day Zero crisis—ten residents (five men and five women, from a range of ages above 18 years old) agreed to be interviewed.

Apart from the Khayelitsha and Constantia residents, interviewees were targeted for their expertise and positionality regarding water rights and Cape Town's Day Zero water crisis. For the interviews with lawyers, non-governmental organisation staff, government officials and the Constitutional Court judge, the interviews were very open-ended, discussing their views about water-related contestation in South Africa before delving into their views on the framing of the Day Zero crisis.

Most interviews were undertaken in person in Cape Town during January 2019. Some interviews were undertaken in person in Johannesburg during January 2019. For logistical reasons, three other interviews took place by email and one by Skype, also during January 2019. Due to the lengthy process of obtaining the required government approval for the research, the interviews with City of Cape Town officials took place by email in May 2020. I undertook one final interview with a South African water rights lawyer while we were both in New York City during February 2020.

By focusing on the nature, use and meaning of the right to water as part of the research objective of this article, I do not mean to suggest that water rights are ring fenced from other rights and rights-based values. On the contrary, I view human rights as critically interrelated and interdependent. It should also be noted that post-apartheid legal and governance frameworks are strongly rights-based, due to the comprehensive legal reforms that occurred during the formal political transition from apartheid and thereafter, with the effect that there has been a widespread diffusion of rights across contemporary legal and political systems. This means, for example, that administrative action, including water

services provision, occurs within a rights-based law and policy environment (this is not to suggest that implementation is without problems). Nonetheless, as an academic exercise, as well as to inform advocacy, it is useful to understand which particular frames and pathways are mobilised during times of water crisis, including how they were mobilised and why.

3. Context

Among the striking characteristics making Cape Town a compelling site of intensification inquiry (within a country of concentration) are its profound socio-economic inequalities imprinted onto its spatial geography. In addition, Cape Town and the Western Cape region are particularly vulnerable to climate change [36–38], positioning Cape Town as a potential portent of what might lie ahead for the rest of the world in an increasingly unequal and climate-unstable world. In the words of Nick Shepherd, "Cape Town opens a window onto the future, to the extent that it suggests what might happen when added stresses of climate change are mapped onto already contested social, political and economic situations" [4] (p. 1745).

With a population of approximately 4 million people, 14 percent of residents live in inadequate or informal housing [39]. In terms of water use, according to City of Cape Town (City) statistics, formal houses consume 55.6 percent of Cape Town's water supply, whereas informal settlements consume only 4.7 percent (the City's own facilities and government departments use 5.1 percent) [40]. Approximately a third of the population cannot afford to pay for water and are eligible for free basic water services [40]. Water infrastructure distribution is highly racialised.

> Infrastructure distribution within the country is divided along racial lines; the provision of infrastructure in white areas is at par with first world standards and equivalent to that in the five most developed countries in the world. This is in sharp contrast to the black communities, where the situation is akin to that of some of the least developed Third World countries [41] (p. 295).

It is against this backdrop that the Day Zero water crisis unfolded. While many argue that Cape Town's water crisis was hastened by water management issues, including reliance on ground water and reservoirs and intergovernmental wrangling (explored in Section 4.2), there is general agreement that one of the main underlying causes was a meteorological drought. The drought that precipitated the Day Zero crisis developed over a three-year period, from June 2015 to June 2018. Rainfall over this period was between 50 and 70 percent of the long-term average, and during 2017, many rainfall records were the lowest ever recorded since written records in the 1880s [42]. The sustained and severe nature of the drought was estimated as a once in 311 years event [42] and probably exacerbated by climate change.

Cape Town and its surrounding agricultural areas and some small towns rely on 14 reservoirs for their water supply, with the six main ones (the "Big Six") storing 99 percent of the water. Collectively the reservoirs usually contain approximately 1 billion cubic litres of water, operating at a 98 percent level of supply assurance, which translates into an unrestricted supply every 49 out of 50 years [42]. The reservoirs rely overwhelmingly on rainwater supply, meaning that when rains fail, the reservoirs' water levels begin to drop [43] (pp. 1–2). At the end of the 2015 rains, the reservoirs were at 72 percent; at the end of 2016, they were at 62 percent, prompting the introduction of water restrictions such as limiting the use of a hose for watering gardens. It was hoped that when the rains came in mid-2017, the reservoirs would be filled up; however, the 2017 rainy season was the driest on record, and by the end of August 2017, the reservoirs were only 37 percent full (which in practical terms means 27 percent as the final 10 percent of any reservoir is almost impossible to access) [42]. At this point, it became clear that Cape Town ran a very real risk of running out of water. Alternative water supplies such as desalination and exploitation of aquifers were considered, but these were very expensive and not feasible on the scale

and in the necessary time frame. In addition, groundwater supply was not a viable option, because most rivers in the Cape Town area are seasonal and dependent on rainfall.

Finding itself with dwindling dam water levels and without alternative water sources, the City instituted a series of more drastic measures to try to reduce consumption. In February 2017, the City released a list of the roads where the top 100 water users in the city lived, and on 3 March 2017, then Executive Mayor Patricia de Lille declared Cape Town a disaster area, and a Provincial disaster was declared on 23 May 2017. It was around this time that the Day Zero terminology began to be used as a "powerfully compressed metaphor containing within itself the idea of a countdown, the scene of a disaster (a ground zero), and an apocalyptic end-time (the end of days)" [4] (p. 1747). According to University of Cape Town (UCT) geographer and environmental change expert, Professor Gina Ziervogel, the term was first coined by Colin Deiner (Chief Director, Disaster Management and Fire/Rescue Services, Western Cape Government), who made a presentation to the provincial cabinet about the drought in May 2017 while using the term [40] (p. 10). The then Premier of the Western Cape Province, Helen Zille, then used the term for an opinion article published by the *Daily Maverick* newspaper on 30 July 2017.

> The term 'Day Zero' has been coined to describe the day—which we are doing everything possible in the Western Cape to avoid—when the demand for water to meet essential needs exceeds the supply. According to current projections, unless we take decisive action, Day Zero could arrive in March 2018 [44].

In September 2017, the City introduced water restrictions of 87 L (or 23 gallons) per person per day (by comparison, the average United States American citizen uses between 80 and 100 gallons of water per day [42]). At first, these restrictions were voluntary and had some success, with water consumption falling by 25 percent. Initial estimates predicted that Day Zero would occur in March 2018; then, with the 25 percent reduction in water usage, the date was shifted to 12 April 2018. Although the 25 percent reduction had pushed back the estimated date for Day Zero by several weeks, a mid-April estimate was not close enough to any expected rainfall to provide much comfort to City managers. Further measures were, therefore, introduced. In December 2017, agricultural water restrictions were set at 60 percent of the usual usage and were monitored by the national Department [40] (p. 11). Moreover, in January 2018, the City introduced the innovative Water Map, which displayed green dots over free-standing houses that were keeping to the restricted water amount, thereby revealing which households were not complying [45]. The Water Map acted to increase social pressure to reduce water usage by exposing "private meter readings to public scrutiny" [46].

Under the rubric of the Day Zero impending disaster, in February 2018, further water restrictions were introduced, limiting residents to 50 L per person per day and now with punitive measures including the involuntary installation of Water Management Devices (WMDs) if residents consumed more than this amount of water. The City had been using WMDs, which reduce the water flow to a trickle above the restricted amount, in poor black residential areas since 2007 to limit lost revenue, but these had never been previously installed in high-income areas [47]. The City also embarked on a campaign to educate water users about how to save water, including much-celebrated adverts showing how to take a two-minute shower set to popular tunes.

Fortunately, these measures collectively proved successful. Cape Town's water consumption dropped by 50 percent, which is the highest percentage reduction that any city in the world has managed to achieve in such a short period of time [48]. To everyone's relief, on 7 March 2018, Day Zero was deferred, and in June it was cancelled for 2018, then 2019 and then 2020. Nonetheless, criticisms about the handling of the crisis were among the reasons identified for the sacking of the Executive Mayor at the time, Patricia de Lille, who was pushed out of her political party, the Democratic Alliance (DA), in November 2018. Beyond the immediacy of the 2017–2018 crisis, it is likely that Cape Town will continue to face droughts and water shortages in the future. It is against this backdrop that this

research sought to understand how the crisis was framed and explained by those affected, as well as those reporting on it in the media and relevant scholarship.

4. Results: How the Crisis Was Framed and Explained

The Cape Town Day Zero crisis can probably be best described using the words of Nick Shepherd as a "slow catastrophe" [4] (p. 1744) that was ultimately narrowly averted through drastic reductions in water consumption. Strikingly absent from reportage, analysis and commentary about Day Zero was any reference to the right to water [49] (p. 1). Interestingly, this is despite Greenpeace Africa embarking on a national campaign at the time to highlight the right to water, which included spray-painting stencils across South Africa's Cities with the slogan "water is a human right, defend water" alongside the picture of a young girl trying to drink from a water tap—see Figure 1 below [50].

Figure 1. Cape Town street art: "WATER IS A HUMAN RIGHT: DEFEND WATER". Photo by Natalie McCauley (January 2019), reproduced here with permission.

Emerging from both the interviews and the media coverage are two dominant discursive frames—that I have termed water-justice and water-governance—with almost no reference to water rights, whether domestic or international. Strikingly, none of the interviewees mentioned water rights unprompted. When directly asked whether they saw the crisis in water rights terms, all interviewees answered in the negative.

Moreover, while 5 of the 150 online media articles reviewed here did mention the right to water, closer inspection of these five media articles reveals that the right to water referencing is not the dominant frame in any of the five pieces and that the articles are more clearly focused on water-governance and/or water-justice. The first of these articles (in chronological order) is an article from a financial online media platform on 10 January 2018 in which Paul Hoffman, the director of the non-governmental organisation Accountability Now, speaks of the constitutional right to water in the context of suggesting that the high water tariffs imposed by the City of Cape Town (for luxury consumption) be

litigated. Covering the right to water in an elite context, the article focuses on the alleged "maladministration" by the national Department of Water Services (DWS)—here, a focus on water-governance is evident with the right to water as a possible tool of accountability to address this (from a relatively elite perspective of people who consume luxury amounts of water and are charged high tariffs for doing so) [51].

The second article, on 28 January 2018, reports on a protest outside Cape Town's city centre involving approximately 70 organisations highlighting the "mismanagement" of the crisis and arguing that the government had failed to appropriately plan for the impending water crisis. In this media article, one protester is quoted saying that "water was a basic human right"; nonetheless, it is clear from the subsequent quote from the same protester, as well as the thrust of the article, that the main frame used by the protesters and the reporter is the water-governance frame: "all levels of government need to stop politicising what is happening. They need to do what they can to avert this disaster. And fast" [52].

The third article, from 12 February 2018, is a report about several people who went to the Premier of the Western Cape Province's official residence to demand the Premier at the time, Helen Zille, to allow them to use her water tap to fill their water containers. By holding banners saying "Water is not a privilege—water is a right", the small group of protesters highlighted their dissatisfaction with having WMDs at their homes, proclaiming that "the management of the water in the city must go and the water must flow" [53]. Here, again, the water rights reference seems tangential to the grievance about WMDs, which is about water-governance and/or water-justice (following the *Mazibuko* judgment, it is likely that South African courts would not regard WMDs as a violation of the right to water).

The fourth and fifth articles that mention the right to water at all are both foreign news outlets. The fourth article, from 27 May 2018, begins by highlighting that racialised inequity in Cape Town "plays out in water very obviously", and then notes that despite the fact that United Nations recognised the human right to water in 2010, "many poor blacks have never even had that human right" [54]. This is the only source that mentions the international right to water, which seems a bit of a strained reference in the context, which more directly relates to racial inequality and injustice in Cape Town. The final article that mentions the right to water is from *Washington Post* on 10 July 2018 (after the crisis had been averted) and is also more directly about water-justice than water rights per se. In an article titled "Cape Town has a new apartheid", Ashley Dawson points out that the City's exposure of luxury water users in the course of Day Zero served to starkly reveal "the yawning disparities in South African society, since excessive consumers were concentrated in the city's wealthy and predominantly white neighborhoods", and also to underscore a lesson for the rest of the world that "access to water is usually uneven, and water and social justice are consequently intimately connected". Juxtaposing the constitutional right to water with the fact that, although constituting approximately half of the city's households, residents living in townships and informal settlements "consume only about 5 percent of the city's total water supply", the article then makes the key point that the crisis is "not simply about scarcity: It is a product of water apartheid and must be addressed as such" [55].

Beyond these five articles, the dominant theme of the 150 online media articles reviewed is water governance-related. The majority of articles (90) are focused on criticism on the management of the crisis, including pointing to delays in dealing with the crisis and unhelpful wrangling between the various government levels, and many articles reflect a water-justice theme. The other prevailing theme emerging from online media articles relates to the water-justice fault line. Along with the online media articles, as elaborated below, an analysis of the interviews, as well as relevant literature, reveals the same trend, with water-justice and water-governance dominating the discourse.

4.1. Water-Justice Frame: Equalising Downwards

Strikingly, one of the strongest threads running through the interview responses, online media articles and much of the literature is the theme of equality or water-justice

or, conversely, inequality or water-injustice. For many participants in this research study, the overwhelming discursive theme was that the crisis was fair in that, for the first time, rich householders had to limit their water usage to the same rudimentary level that poor (overwhelmingly black) households were already restricted to (through the historical rollout of WMDs in poor, black areas or inability of residents to afford the water tariffs beyond the free basic amount). Residents from Khayelitsha interviewed all expressed a sense of fairness about Day Zero, pointing to the equalisation of consumption amounts and the installation of WMDs in rich areas to control the water supply for wealthy households that used too much water.

Crystalising the sense that Day Zero had brought about some levelling, one Khayelitsha interviewee explained the following: "Day Zero happens in white areas" [interviews Khayelitsha]. This perspective was echoed by another resident who seemed relatively disinterested in Day Zero, saying that water meters were "closed in white areas—that's where the problems were" [56]. For another resident, it was "fair to restrict water because everyone needs water" [56]. Yet another Khayelitsha resident noted: "it is fair that both the rich and us here have limits on water" [56].

Similarly, Thabo Lusithi from the Environmental Monitoring Group (EMG) spoke about the 50 L limit "not being new to poor residents", underscoring that for Cape Town's poorer residents, there has never been hot water or sufficient water for a shower [57]. Highlighting the primacy of race, Lusithi explained that water rights issues "take a backseat in Cape Town to race and fairness" [57]. Likewise, Gina Ziervogel noted the following: "people in townships experience Day Zero every day" [58]. For a science and policy expert at a Cape Town public interest law firm, justice was a much stronger lens with which to view the crisis than access to water or water rights, mainly because poor communities "face Day Zero everyday". However, the same expert conceded that it was only once richer households shared the experience that the issue of water use garnered much public attention [59].

An example from media articles within the water-justice frame is a *Sunday Times* article arguing that rich and poor Cape Town residents rallied around the public good of conserving water because they felt they were "working together to achieve a common goal", and that part of this in the Day Zero context related to richer households having "brought their use down to the same levels of poorer households, who have little room to reduce their already low consumption rates" [60]. Another example is an online report from 27 January 2018 titled "Finally, we have a crisis on our hands that affects all" [61].

However, not all commentary within the equality frame is as positive about the justice of the crisis. Instead of celebrating the equalisation of white/rich households, several commentators highlighted the ongoing injustice of the low standard of water supply for many black households. In an article from 29 January 2018 titled "The poor have survived Day Zero for years", academic Ralph Mathekga laments the fact that many poor people in South Africa have "been on Day Zero for the last 30 years" [62]. Likewise, in an article from 5 February 2018, opposition political leader Julius Malema (Commander-in-Chief of the Economic Freedom Fighters party) is quoted saying the following about Day Zero: "Black people have always been subjected to Day Zero, but no trucks had been deployed to supply them with water . . . We can't hear a lot of noise about Cape Town just because it's whites. Water crisis must be resolved everywhere" [63]. In an opinion piece, academic Mary Galvin notes that the amount being imposed across the board in Cape Town is "equal to what poor households have lived with for years" due to inadequate and distant communal taps, leaking infrastructure, unaffordable water tariffs and WMDs [47]. Moreover, an article published on 20 February 2018, Voice of America southern Africa correspondent Anita Powell stresses the unacceptable ongoing reality of poor black Cape Townians such as Welekazi Rangana, who has never taken a shower in her 53 years of life—she and her family bathe in the bedroom of their tiny Khayelitsha house using a shallow bucket that holds about eight litres of water and are very used to being restricted to using less than 50 L per person per day [64].

By raising another equality-related point in his interview, Thabo Lusithi pointed out that wealthier residents in the suburbs had the space on their properties and could afford to sink boreholes to secure additional water—although the City formally required boreholes to be registered, their water supply was not limited [57]. Interestingly, during her interview, the former Executive Mayor, Patricia de Lille (who did not view the crisis in water rights terms), conceded that while WMDs were distributed across poor and rich neighbourhoods alike, once a WMD was installed, the household would have to apply to have it removed, which was more difficult for poorer residents to do especially as there is a trust deficit between poor residents and the City [65].

4.2. Water-Governance Frame: Mismanagement and Political Wrangling

Whether or not Cape Town should have upgraded its reservoir system earlier on and/or diversified its water supply sources is debated in the sources, with some commentators noting a failure by the City to invest in long-term and innovative infrastructure or services that is likely related to the commercialised nature of water services. For example, according to long-time social justice activists and researchers, Dale McKinley and Jeff Rudin, the underlying problem with water-governance in Cape Town (and South Africa more broadly) is its neoliberal, cost-recovery premise, which obscures viewing water primarily as a socio-environmental good and discourages necessary innovation and investment in public systems [25,66].

Beyond any impact of commercialised water services, many commentators pointed to the complex governance arrangements for water services in South Africa as having played a significant role in the Day Zero crisis. South Africa has a complicated structure of political governance which, in the water services realm, means that DWS is responsible for financing and overarching water management including infrastructure development. The provincial government is responsible for regulating and supporting municipalities in their management of water and sanitation services, and the role of local government (municipalities) is the actual reticulation of water (and sanitation) services. In addition, DWS has the mandate to declare disasters under the Disaster Management Act [67] and thereby to release significant disaster funding. This fracturing of functions is particularly important in Cape Town because the City of Cape Town (and the Western Cape Province) is led by the main political opposition party on the national scene, the DA, whereas the national ruling party (which also has control of all the other eight provinces) is the African National Congress (ANC).

It is clear from multiple sources that inter-governmental wrangling exacerbated the already difficult attempts to manage the evolving water crisis and resulted in delays in declaring the crisis a disaster under the Disaster Management Act, which would have released additional funding to the City to manage matters [40] (p. 6) [68]. Other DWS decisions that have been identified as problematic was the allocation of 60 percent of the area's water reserve to agriculture and the refusal of the province's request for additional funding from DWS to drill boreholes and recycle water [69].

For Gina Ziervogel, part of the Day Zero problem related to the "defunct" DWS [58]. A science and policy specialist based at a Cape Town public interest law firm (who wished to remain anonymous) expanded on this theme, outlining the "corruption, mismanagement and dysfunctionality" of DWS and reiterating the issue of "mudslinging" between the City of Cape Town and DWS "because of politics" [59]. The vast majority of online media articles also point to the mismanagement of the crisis by DWS and the failures of government more generally [70–72]. Poor regulation by DWS was also highlighted by long-time water sector activist, Laila Smith [26]. More generally, in South Africa, poor municipal governance has resulted in the complete collapse of some municipalities. For example, in January 2020, the Makhanda High Court ordered the dissolution of the Makana (Grahamstown area and surrounds) municipal administration and its placement under provincial administration due to the municipality's complete dysfunctionality [73]. A series of four case studies of water-related problems pursued by the Socio-Economic Rights Institute of South Africa

(SERI) in 2020 also identified poor and/or corrupt municipal governance as a major factor behind the identified water-related problems in those communities [74].

Notably, interviewees from Khayelitsha did not use the water-governance frame beyond any criticism of WMDs. It is likely that there is less criticism of the (ANC) DWS, because the majority of residents in Khayelitsha supported ANC rather than DA. It is less clear why residents from Khayelitsha would not criticise the DA municipal government more than they did, but it is possible that, for them, the water-justice frame was more compelling than the water-governance frame (and also that, because they have always had an inferior water supply, effective governance is not expected).

For Cape Town's wealthier residents, it was novel to have their water supply restricted despite being able to pay for luxury consumption. However, rather than a water rights issue, for Gordan Chunnett, a member of the Constantia Rate Payers' and Residents' Association [75] (Constantia was rated the third most affluent Cape Town suburb in 2019 [76]), Day Zero represented DWS's failure.

> The fact that you or I may have a constitutional right to . . . clean, filtered potable water was hardly the theme of concern, it was availability or lack thereof. Arguably, if we have a constitutional right to water, then central government is accountable to the people to make sure that supply is adequate to the demand. And here I hint at the calamity that is DWS [77].

While most sources expressed their water-governance analysis from the perspective of criticising the (ANC) DWS, Thabo Lusithi explained that at various points during the crisis, he had asked himself whether "DA was playing games", especially when he saw that there were "still sprinklers on golf courses" [57]. Regardless of whether supporting the national or municipal government or neither, this feedback highlights the political and governance-related character of water provision. As David Olivier has explained, the "complicated" relationship between the ANC-led national government and the Western Cape as "the only province in the country run by the official opposition party, the Democratic Alliance" demonstrates that "water crises are rarely a matter of rainfall" [69]. Mike Muller (a Visiting Adjunct Professor in the Wits School of Governance and former Director General of the then-named Department of Water Affairs and Forestry) agrees that water crises "are in large measure problems of people and organisation" [78].

5. Discussion: Revisiting Water Rights to Understand the Shape of Water

Reflecting on why the Day Zero crisis was not typically viewed as a water rights issue (across all categories of sources), it is probable that the restriction of water supply to 50 L per person per day (which, after all, is a water rights-oriented baseline set in the water services legislation) did not rise to the level of a violation (of any kind) in the minds of most residents. Indeed, many poorer households were already used to this level of restriction (due to the installation of WMDs for reasons of non-payment of water above the 50 L amount) and although an inconvenience in many cases tinged suspicions of national mismanagement for many rich households, this amount never dipped below the minimum legislated amount of basic water, which is in line with the constitutional guarantee. In the words of a Constantia resident, Gordon Chunnett, the "government did not cut off the supply completely" [77].

It is interesting to contemplate whether responses might have been different and the right to water invoked if residents' water supply had been completely disconnected, perhaps in the context of a declaration of a state of emergency. Although the Cape Town drought was ultimately declared a national disaster, the government never declared it a state of emergency (in terms of section 37 of the Constitution [12]), which would have enabled the suspension of certain rights including the section 27 constitutional right to water (probably related to its association with South Africa's apartheid past, there has never been a declaration of a state of emergency in post-apartheid South Africa; similarly to the Day Zero water crisis, the 2020 SARS-CoV-2/COVID-19 mitigation response was carried out within the ambit of a national state of disaster under the Disaster Management

Act rather than a state of emergency). More generally, this article's Day Zero examination, as well as the broader inquiry into why there has been so little water rights contestation in South Africa, suggests that there might be something about water more generally that diffuses rights-based contestation possibly more than for other socio-economic rights.

When asked, as part of this research, first whether and then why there had been relatively little water rights contestation in South Africa, all interviewees agreed that there had been scant water rights contestation. Their explanations for how they understood this relative absence are instructive. Many interviewees mentioned the complexity of water. For example, according to the anonymous science and policy expert at a public interest law firm, the relative lack of water rights contestation relates to the "complex nature of water" [59]. Two colleagues from the Centre for Applied Legal Studies (CALS) expressed similar sentiments, noting that water is a very "diffuse right" and is often pursued through an environmental rights or regulation lens and, even then, often mainly through a narrow administrative law frame, e.g., regarding decisions to issue water licenses, etc. [23,24]. Academics echo the point about the complexity of water. According to former Director General of DWS, Mike Muller, "water is a difficult resource to come to grips with, literally and figuratively" [78]. As Nick Shepherd explains, "rather than being an inert resource . . . water is a complex object constructed at the intersection between natural systems, cultural imaginaries and social, political and economic systems" [4] (p. 1744). To this list of intersecting dynamics, legal systems should be added, including human rights frameworks.

Part of water's complexity from a human rights perspective is that it is the only right that is a truly finite resource. Moreover, water is essential to human survival in a manner that is more direct than any other right other than the right to life in its absolute sense (humans can suffer without all other socio-economic rights, including food, for varying lengths of time just as they can suffer for varying lengths of time as a result of violations of civil and political rights, but they cannot live without water for more than a couple of days). The necessity characteristic means that people will find a way to obtain water, however inadequate and unsafe. Having found a way to access water, people often "make do". This point was emphasised by Justice Edwin Cameron, who explained the following: "people make do with the water they can access, like with food" [35]. Similarly, City manager Jaco de Bruyn's response regarding why Day Zero was not a water rights issue, was that it was a "matter of survival, rather than a human rights issue" [79].

An interesting angle on the necessity fault line was provided by Alana Potter, then Director of Research and Advocacy at SERI. As the only interviewee to mention gender, Potter highlighted that one of the likely reasons that there was relatively little mobilisation around the right to water is that people have to secure water to survive and that, especially in rural areas with inadequate water supply, it is "overwhelmingly women and children who shoulder this burden"—this could explain why, in South Africa's deeply patriarchal society in which particularly African women are marginalised, it is "less prioritised" [80]. Using Justice Cameron's comment, this suggests that a large part of "making do" is that women, whose domestic work is vastly under-valued, walk vast distances to river sources or far-flung taps to secure household water. Potter's astute point —which is not to imply that women have no agency but is rather an indication of the weight and consequence of black rural women's triple (class-race-gender) oppression [31] (p. 239)—suggests that if men were the ones having to secure water, problems with access to water might be taken more seriously and there might be more water rights mobilisation around the issue.

Another complexity facet is that the experience of water is fundamentally different (possibly more so than with other rights) depending on context. Having to walk three miles with a bucket on your head to fetch water from the river is a completely different experience of obtaining water than opening a tap to have a hot shower. The vastly different experience of water is powerfully illustrated by Sofie Hellberg's research in which she interviews residents of different socio-economic status and asks them about the meaning of water: A resident from a wealthy suburb explains that " . . . when we have had a long

day and everybody is a little frantic . . . I just put [the children] into the bath, or the shower, and I wash their hair and scrub them from head to foot so I have nice clean children [ready for] bedtime", whereas a resident from a poor rural community describes that she "never got [water] easily . . . I fetched it from the river . . . I had to walk a long distance to the river . . . I have never got it with happiness and enjoyed having it because I have no tap" [81] (pp. 72–73). Adding to the complexities around water rights contestation, the socio-economic reality in South Africa is that the places where the vast majority of water-related problems persist (rural areas and informal settlements) are also the places where there are fewer public interest law organisations, which predominate in urban areas "where almost everyone has a water connection and water is hardly ever disconnected anymore" [80].

Thus, the right to water—similarly to the resource—is inherently dependent on the context. In a rural areas, access to water may be socialised relatively uncontested as women and children walking long distances to fetch water from a river. On the other hand, in urban areas, water is literally cast in stone in the form of infrastructure that reproduces underlying socio-economic inequalities and spatial injustices such as in Khayelitsha. Just as frozen water takes on the shape of the crevices it freezes into, the right to water conceptually assumes the shape of the underlying structure and schisms. In this understanding, the right to water is often a derivative right that frequently relies on other rights such as "portals", whether discursively or pragmatically, for its realisation.

This approach is endorsed by the lawyers interviewed for this research, all of whom explained the relative paucity of water rights contestation by referencing that water-related issues are typically pursued through other pathways (or portals) than the right to water. In practice, this means that water quality and licensing issues are usually pursued under environmental or administrative law provisions [23,24], and access to water issues is typically pursued through the Constitution's section 25 right to land or section 26 right to housing [12], which have effectively become the portal right to access water (and sanitation). According to Alana Potter, "access to services is so embedded in land use, tenure security and housing that this becomes the primary driver or hook. When you have a house you, least theoretically, have access to piped water (and a toilet)—so this is where the struggles are situated" [80]. Similarly, Zeenat Sujee points to the fact that since the Constitutional Court case of *Nokotyana and Others v Ekurhuleni Metropolitan Municipality and Others* [82] (a case about access to sanitation for informal settlement residents), "courts have wanted to approach basic service-related cases by resolving the underlying housing rights related issues rather than through tackling water or sanitation rights directly" [34].

However, according to the findings of this research study, Day Zero was viewed neither through a water rights nor a housing rights lens. Rather, confirming the shape-shifting derivative nature of the right to water, the crisis was framed and understood in terms of the primary structural problems in Cape Town of socio-economic inequality and government misgovernance. It is perhaps not surprising in the context of Cape Town's profound, racialised inequality and enduring spatial injustices, as well as the tensions and contradictions of DA local and provincial governance, that water-justice and water-governance should be the prisms through which the majority of interlocutors viewed Day Zero. As concluded in a recent article in *Water* by Ademola Oluborode Jegede and Pumzile Shikwambane regarding the persistence of "water apartheid" governance in South African cities such as Cape Town, the "continuing struggle of disadvantaged communities with access to water . . . negates the human rights principles of equality and non-discrimination" [83] (p. 1).

6. Conclusions: Towards a New Water Equity and Governance Paradigm?

Returning to the central inquiry of this article and Special Issue regarding the uptake and impact of the international right to water, when the United Nations General Assembly recognised the international right to water on 28 July 2010, this was correctly celebrated as an important addition to the international socio-economic rights machinery. At the

same time, some commentators, such as Sahana Singh (editor of *Asian Water*), were more sanguine, noting the following: "We all know that there is no life without water. No more time should be wasted on drafting new laws or resolutions" [84].

Seeking to explore the impact of the right to water, this article has outlined that in South Africa, although there are still water-related problems, there has not been much water rights-framed contestation around this issue. Examining Cape Town's Day Zero water crisis, the article has highlighted that the complexity of water means that there are a range of possible pathways to pursue and multiple hooks (many of which are rights-based) on which to mount water-related claims other than the use of the right to water per se. This is not to diminish the importance of water rights, whether domestic, regional or international. As pointed out by Lisa Chamberlain from CALS, even if the international (or domestic) right to water is not used directly "in the instrumental sense", it is "a powerful motivator" and "accountability catalyser" that undoubtedly acts as a lodestar albeit sometimes a distant one [23]. Rather, the article underscores the diffuse nature of both human rights frameworks as opportunity structures and rights as tools of analysis and potential empowerment. And the article indicates that the right to water might be a particularly fluid right that often acts derivatively via an alternative portal right or frame. While in South Africa the most common portal for water-related issues has been the right to housing, in the case of Day Zero, the water crisis was overwhelmingly framed and explained as a water-justice or water-governance issue.

Using Cape Town as a compelling site of inequality intensification, the article tentatively suggests that the Day Zero crisis might hold some lessons for an increasingly unequal and ecologically unstable world. A key lesson is that if it is true (both in subjective and objective terms) that water crises such as Day Zero relate more to water-justice (distribution) and water-governance (management) than to water scarcity (in this sense, the crisis is more "produced" than inherent or inevitable), this means that if we can resolve these issues in a progressive, equitable manner, it might be possible to avoid running out of water with all its concomitant social upheaval. This inference resonates in the global arena with the focus of the United Nations Development Programme (UNDP) *Human Development Report 2006* titled "*Beyond scarcity: Power, poverty and the global water crisis*", which concludes that the world's water crisis is largely determined by power and politics (and distribution of resources including water) rather than by objective water scarcity [85]. Responding to the UNDP's conclusion, as well as to the water-justice and water-governance findings from this Day Zero research, might necessitate a new global water-governance paradigm in which water is allocated according to need rather than ability to pay, notwithstanding the considerable challenges to achieving this, especially across unequal cities, countries and regions.

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Conflicts of Interest: I was part of the litigation team in the *Mazibuko* water rights case (2004–2009), which is briefly referred to in the article. However, this case is not a significant part of the article's analysis and, to the extent it is referred to, this is through the opinion of others.

Ethical Statement: All subjects gave their informed consent for inclusion before they participated in the study. Where subjects have been named, they gave their informed consent for this attribution. One subject who wanted to remain anonymous has not been named (the description for this subject was agreed with the subject). Notwithstanding securing informed consent from the participants from Khayelitsha informal settlement, these participants have been anonymised out of an abundance of caution regarding possible issues with non-payment of water, etc. The study was conducted in accordance with the Declaration of Helsinki, and the protocol (H18/11/09) was approved by the Ethics Committee of the University of the Witwatersrand on 16 November 2018 in terms of its research protocols for interviews with human subjects. For the interviews with City of Cape Town government officials, I was required by the City of Cape Town to obtain governmental research approval as well, which I did, on 13 March 2019.

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