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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.



Citation: Dugard, J. Water Rights in a Time of Fragility: An Exploration of Contestation and Discourse around Cape Town's "Day Zero" Water Crisis. *Water* **2021**, *13*, 3247. <https://doi.org/10.3390/w13223247>

Academic Editors: Bruce M. Wilson and Pankaj Kumar

Received: 27 September 2021
Accepted: 11 November 2021
Published: 16 November 2021

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

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 Vista 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.

Crystallising 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 Mathekgga 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 Chunnnett, 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 Chunnnett, 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.

Funding: I received research support and fieldwork funding for this article from the Research Council of Norway research grant #263096 RNC/FRIHUMSAM “Elevating Water Rights to Human Rights: Has it strengthened marginalized peoples’ claim for water?”.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Acknowledgments: I would like to thank Natalie McCauley (former Harvard Law School JD student) for sharing her law school writing credit report on Day Zero with me. Undertaking many of the interviews together and discussing the responses during our ten days together in January 2019 was extremely useful, and McCauley and I came to the same conclusions regarding the absence of water rights framing, as well as the dominant frames of analysis, of the Day Zero crisis. I would also like to thank Angela María Sánchez (former law student from Universidad de los Andes in Bogotá), who assisted me in collating the online media reports on Cape Town’s Day Zero crisis; Natasha Salant (former law student, University of the Witwatersrand), who compiled a database of water-related cases for this research; and University of the Witwatersrand law student, Nicola Soekoe who, in December 2020, assisted me in updating my matrix of Constitutional Court socio-economic rights cases. My thanks also goes to housing rights activist, Makale Ngwenya, as well as activists from the Cape Town-based Social Justice Coalition, for facilitating interviews with Khayelitsha residents in January 2019. Finally, I am very grateful to the Research Council of Norway for providing funding for this research and to all the people who so generously participated in the research for this article.

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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