RESPONDING TO WATER INSECURITY IN DURBAN, SOUTH AFRICA

ALEXANDER TODD

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Abstract

This paper investigates how poor people respond to inadequate water access. I analyze the main frameworks used by scholars to conceptualize responses to water insecurity – 'water as a human right' and 'water commons.' The former has for decades been a predominant framework used by academics and activists in the struggle for improved water access for poor residents. In theory, the official declaration of water as a human right pressures governments to prioritize water access for citizens, thus leading to improved water access. However, many residents remain without adequate water access, despite official declaration. Thus, the perceived failure of the human right to water framework suggests to some that a water commons – a system of community control, management, and preservation of water to allow for equitable distribution – is a more effective framework for improving water access. Further, some argue that combining both frameworks increases the chances of advancing water access for poor people. This paper examines how these frameworks play out in the Durban township of uMlazi, in a nation (South Africa) whose citizens have a constitutionally granted right to water. This offers insight into which framework is most useful in understanding how poor people respond to water insecurity. Residents respond in various ways to water insecurity, with strategies reflecting either the water as a human right framework or the water commons framework, at least partially. The water as a human right framework seems to be failing poor Durban residents, who find improved water access through various alternative strategies that reflect certain elements of the water commons framework. However, these alternative strategies do not reflect the water commons framework in significant ways, thus making them unsustainable and partial options. Yet, until government water policy allows improved water access for the poor, water commons strategies tend to be an effective alternative to government-endorsed strategies, which hinge on the right to water.

1. Introduction

Water is a fundamental requirement for human life, yet water access is not a reality for many around the world, as 2.8 billion people face either physical or economic water shortage globally (UN-Water, 2010). South Africa is no exception. Since the fall of apartheid in 1994, the government has put in place policies aimed at creating racial equity and combating the racially unbalanced power structure. Sadly, post-apartheid reform in South Africa has not created equity, nor has it fostered an environment in which equity can be expected to easily emerge. Such failure is partially tied to the post-apartheid government's neoliberal strategy of focusing on cost recovery – that is, making decisions based purely on recouping expenses and balancing finances, rather than focusing on ensuring that poor South Africans attain a higher quality of life (Bond, 2000).

Yet South Africa's Constitution (RSA, 1996) may be a key to improving citizens' quality of life. Completed just two years after the end of apartheid, it is widely recognized as one of the most progressive state Constitutions in existence. It guarantees its citizens a host of socio-environmental rights including "the right to have access to sufficient food and water" (ss. 27.b) and "the right to an environment that is not harmful to their health or well-being" (ss. 24.a). The discourse regarding access to water in South Africa thus largely revolves around 'rights' language, particularly the 'right to water.' This has become the dominant language used by both activists and academics regarding water access in South Africa.

Durban – shown in Figures 1 and 2 – is one of South Africa's 'big three' cities along with Johannesburg and Cape Town. It has received national and international acclaim, both for its water policy and for its municipal governance on the whole (Montaigne, 2002; Abraham, 2006; eThekwini Municipality, 2006; Mlaba & Sutcliffe, 2006; The Together Foundation & UN-

Habitat, 2008). Neil Macleod, the city's Water and Sanitation head, has even received several

awards for the work he and his department have done for the city's residents. These include a

2002 *National Geographic* award, a 2003 Dubai International Award for Best Practices, the 2003

South African Excellence in Innovation Award, and the 2003 Ford Foundation Impumelelo

Award. In short, Durban has become rather widely known as home to one of Africa's finest

water service departments (Bond, 2011).

Figure 1. Durban's location within KwaZulu-Natal province, South Africa, and Africa (Big
Picture Ministries, 2012).

Yet, Naidoo, Khumalo and Bond (2007) argue that poor residents of Durban – or more

specifically eThekwini,[1] the municipality that houses the city of Durban and surrounds – are

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[1] Durban and its surrounds are part of the eThekwini metropolitan municipality. In everyday discourse, residents
identify with Durban rather than eThekwini, and therefore I generally use the term Durban. This also allows
continuity with the pre-2000, post-apartheid period, before the creation of eThekwini and other such municipalities
across the country.

being negatively affected by the very water policies that helped the city receive such critical acclaim, creating an "aqua-apartheid system." This refers to poor residents being over-charged for water, often leaving them unable to afford water tariffs. Adding to this are projections from current and former government officials that Durban will experience a water shortage within a decade (or as early as 2012) due to climate and precipitation variability (SAPA, 2011; Savides, 2011).

Figure 2. Various communities within Durban (and eThekwini), including uMlazi (Rooms for Africa, 2011).

There is an obvious disparity between the water rights granted to South Africans on paper and the lacklustre access to water among poor Durban residents, and South Africans in general,

on the ground. This suggests a broader disconnect between human rights in theory and in practice. As a result, while some scholars praise rights discourse in South Africa (Glazewski, 2002; Liebenberg, 2005), others are more critical and question its effectiveness (Bond & Dugard, 2008; Dugard, 2006; Pieterse, 2007; Roithmayr, 2000). Some scholars advocate for moving beyond rights discourse altogether toward a 'water commons' framework as an alternative framework that may succeed where the 'human right to water' framework has failed (Bond, 2010, 2011, 2012; Roithmayr, 2010).[2]

The strategies that reflect the water as a human right framework entail relying on the right to water that is directly granted to South Africans in the Constitution as a means for improving water access. Proponents of this framework argue that the nation's Constitution, along with the legal and governmental systems that uphold it, are sufficient tools to provide poor South Africans with adequate water access. This framework is especially contingent on the government, which acts as a necessary conduit through which water demands are met. For Durban residents, this can mean seeking assistance from the municipality and accepting a low, limited amount of daily water.

The strategies that partially reflect the water commons framework entail a variety of methods of making water freely available to those in need rather than simply for those with a high enough income. Proponents of the water commons framework argue that the constitutional right to water, along with the legal and governmental systems in place to uphold it, has failed the people in need (Bond, 2010, 2011, 2012; Roithmayr, 2010). For Durban residents, this means finding ways to make water more widely available than is possible through government-

[2] A framework, or conceptual/theoretical framework, can for the purposes of this paper be defined as "a network... of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena (Jabareen, 2009, 51).

sanctioned options, such as by using illegal connections and informal settlement standpipes. The links between these frameworks and corresponding strategies are discussed in more detail later.

This project is based upon two main research questions. The first is "*What are the predominant frameworks used to conceptualize responses to water insecurity, in South Africa and beyond, and what are the strengths and weaknesses of each?*" This question provides the paper's theoretical foundation. Building on theory, I ask a second research question – "*How do these frameworks help to explain water struggle in Durban?*" With this I use the case of Durban to bridge the theoretical with the practical – the broad with the narrow. I argue that on the ground, Durban residents respond to water insecurity in various ways that reflect, to varying degrees, both the water as a human right framework and the water commons framework. The strategies that reflect the water as a human right framework entail government assistance but often come up short. The strategies that partially reflect the water commons framework provide residents with ways to rise above the shortcomings of the water as a human right framework. The latter strategies must, however, be understood as unsustainable and temporary, as they are largely unregulated and can lead to water wastage. Using these two frameworks to investigate residents' responses to water insecurity allows us to connect theory with practice and to better understand which frameworks are the most and least successful in improving water access. It is unclear whether any successful compromise between the two frameworks is feasible – or desirable – in Durban, yet it is clear that water access needs to be improved. My hope is that scholarly debates on this issue, including my contributions, will reveal the problems in current policy and lead to governments considering a more commons-focused approach. Before examining resident responses to water insecurity, though, I outline the main barriers to water security for Durban residents.

1.1. Barriers to water security

There are a variety of barriers to clean water access in Durban. These revolve primarily around the government policy (endorsed at the national level but carried out at the municipal level) of full cost recovery for the city's water consumers. Loftus and Bond have been at the academic forefront of exposing and analyzing water access issues faced by Durban residents. Loftus (2005), after interviewing Neil Macleod, head of eThekwini Water and Sanitation, outlines Durban/eThekwini's relationship with its bulk water supplier, Umgeni Water.

High tariffs in Durban can be traced back to the purchase of overpriced infrastructure on Umgeni's behalf in 1982 in the nearby city of Pietermaritzburg. Since then, tariffs charged to Durban by Umgeni have risen rapidly, which in turn gets passed on to the consumers, hindering water access for those who cannot afford to pay (Loftus, 2005). While a free 'lifeline' of water is available to some residents, its effectiveness is questionable, as I will illustrate later. One consequence of not being able to pay bills is disconnection from the water supply. In fact, in 2003, 4000 households per week in eThekwini were being disconnected by the municipal government due to non-payment of bills. Even by conservative estimates of 4 people per household, this means cutting off 16000 people per week (Loftus, 2005). Though this occurred in 2003, a focus group I conducted with eThekwini Water and Sanitation employees confirms that cutoffs still take place if residents do not pay their bills or seek assistance from the municipality (Education and Liaison Officers at eThekwini Water and Sanitation, personal communication, August 25, 2011). Given South Africa's enormous income disparity between rich and poor, Durban's water policies and practices carry important class dimensions. The pricing structure negatively affects poor South Africans much more than their wealthy compatriots. The same can be said about the annual water tariff increases.

A study conducted by Bailey and Buckley (2004) shows how the changing pricing structure affects South Africans. Figure 3 shows the tariff increases over the 1995-2004 period, including the gradual move to a block structure that charges residents different rates per kilolitre based on their level of monthly consumption. This allows the free consumption of up to 6kL of water per month per household, known as free basic water (FBW), while simultaneously increasing the price for water in the higher consumption categories. Because the measured consumption is based not on individual consumption, but on household consumption, the more people living in a single household, the more difficult it is for that household to remain within the free water limit. So, large, low-income families are likely to face a particularly difficult struggle for sufficient water access.[3]
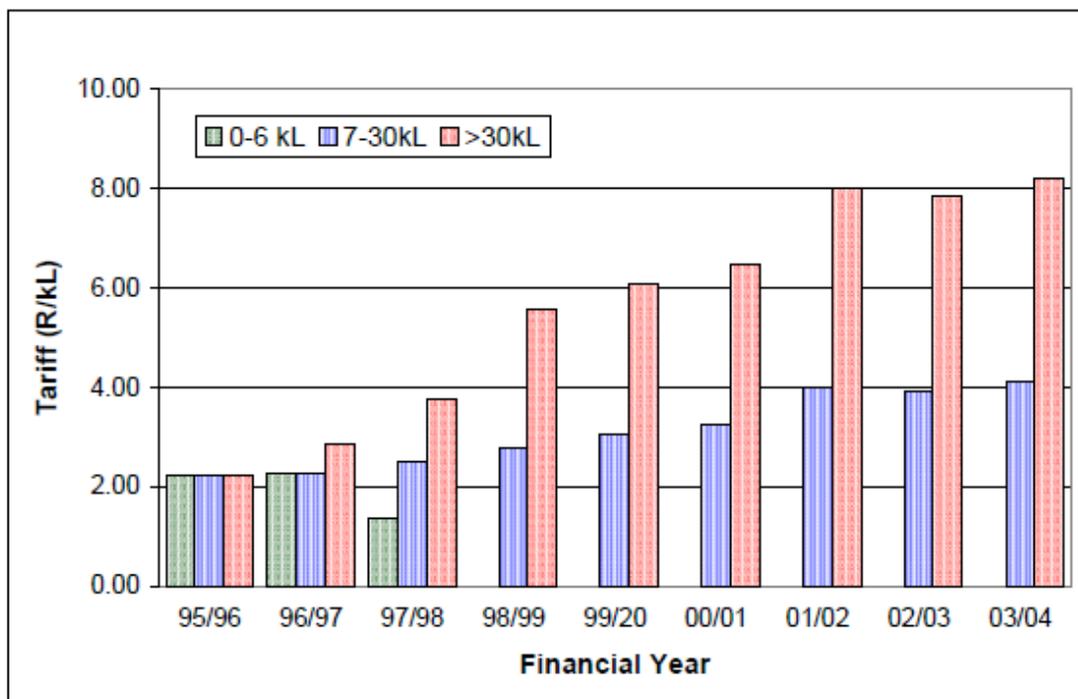
Figure 3. Change in real (base 2000) domestic water tariff between 1995 and 2004 showing the development of the increasing block tariff (Bailey & Buckley, 2004).

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[3] The monthly amount of FBW in Durban has since been upped to 9kL per month per household. However, along with this improvement came a set of 'indigency' criteria that limit which households are eligible for the FBW. I discuss this in greater detail later.

Furthermore, Bailey and Buckley (2004) show how tariff increases comparatively affect low, medium, and high income residents, as based on household values. For the purpose of this study, these categories are as follows. Single residences valued between R1, 000 and R56, 000 are considered low income. Residences valued between R56, 000 and R154, 400 are considered medium income. Residences valued between R154, 400 and R1.2 million are considered high income.[4] As Figure 4 illustrates, the price elasticity of water demand varies significantly based on income level. As the real price of Durban water doubles over the study period, households in the high and medium income groups only slightly reduce their water consumption to compensate (price elasticities of -0.10 and -0.14 respectively). Meanwhile, the low income households are forced to drastically reduce their consumption (a price elasticity of -0.55) in order to meet their monthly payments. This suggests, as Bond (2011) observes, that Durban's poor residents are overcharged while its wealthier residents are undercharged. Households who did not pay their bills during this study period were excluded from the study. This suggests even worse conditions for low income residents than the findings reveal, as residents too poor to pay their bills – the very poorest – are left out.

Extending beyond Durban, it is apparent that Durban's water pricing compares unfavourably with that of other cities, both in South Africa and beyond. Compared to other South African cities, Durban's water pricing scheme is not particularly resident-friendly. As Figure 5 illustrates, no other households are charged a higher tariff at the second price block level than are Durban (eThekwini) households, shown with the blue line.[5] Figure 6 compares water prices in Durban with prices in other cities in the developing world, highlighting Durban's steep prices beyond the FBW. While the existence of the FBW is beneficial to poor residents, if

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[4] Not included in the study are 'outliers' – homes valued under R1000 or above R1.2 million.
[5] This is using the 'full pressure' category. The 'semi pressure' category refers to households that use groundwater tanks. This occurs primarily in rural areas.

large households (who are eligible for FBW) are unable to remain within the FBW consumption level, water access will remain out of reach.
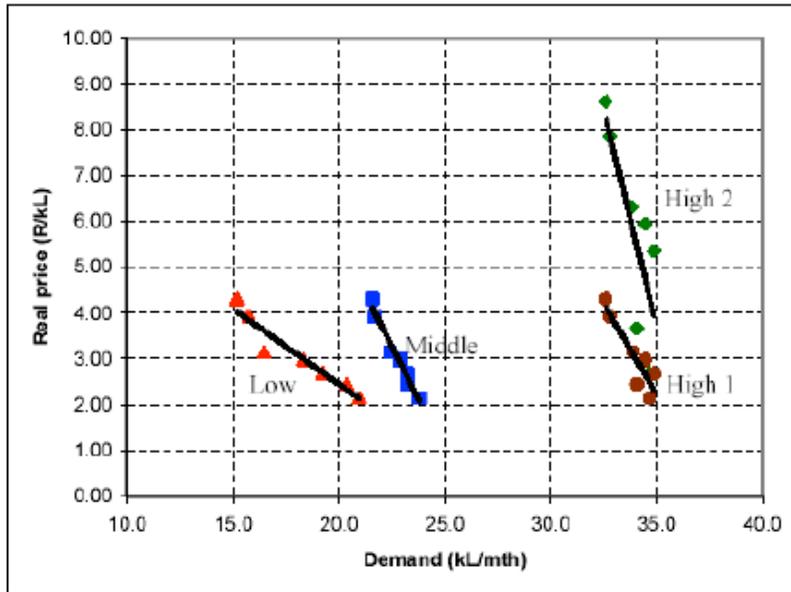
Figure 4. Relationship between average monthly demand and price for low, middle, and high income groups (Bailey & Buckley, 2004).
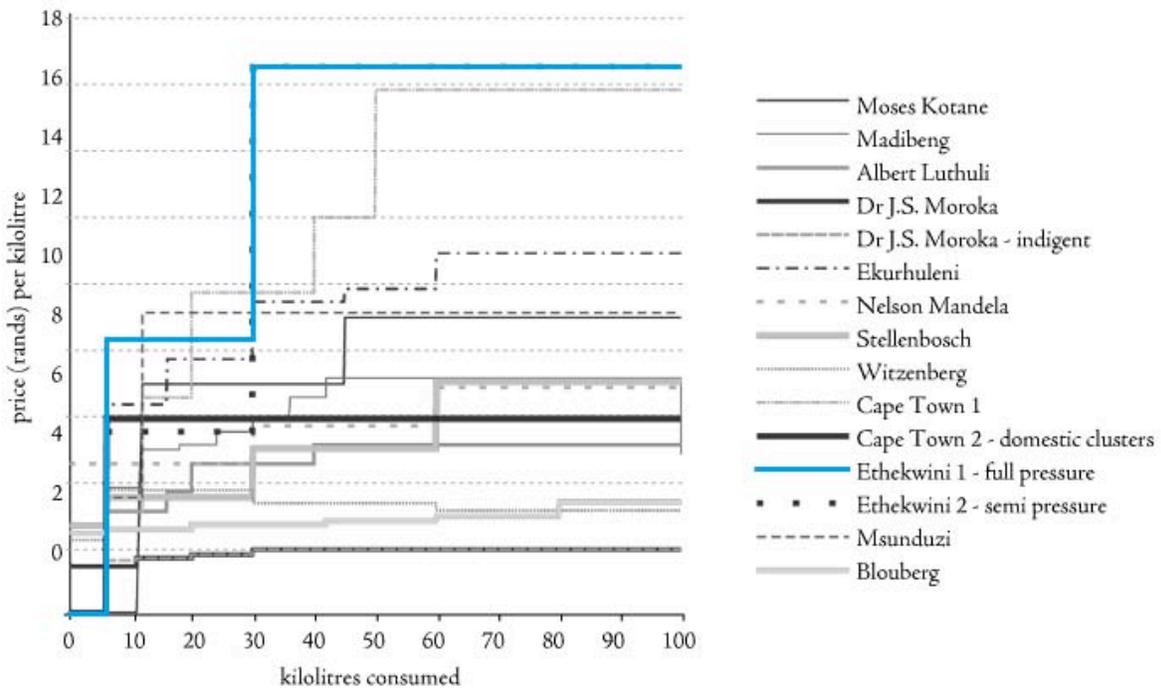
Figure 5. Block tariff structure across municipalities. Durban residents are charged a premium for water consumed beyond the FBW level. Intricacies of the changing FBW policies are explained in greater detail later (Tissington et al., 2008).

Figure 2.3 | **Utility water prices usually rise with volume**

Step increases in block water tariffs, 2001–05 (US$)

Cubic metres per month

Source: ADB 2004; Vircoulon 2003; WSP–AF 2005c.
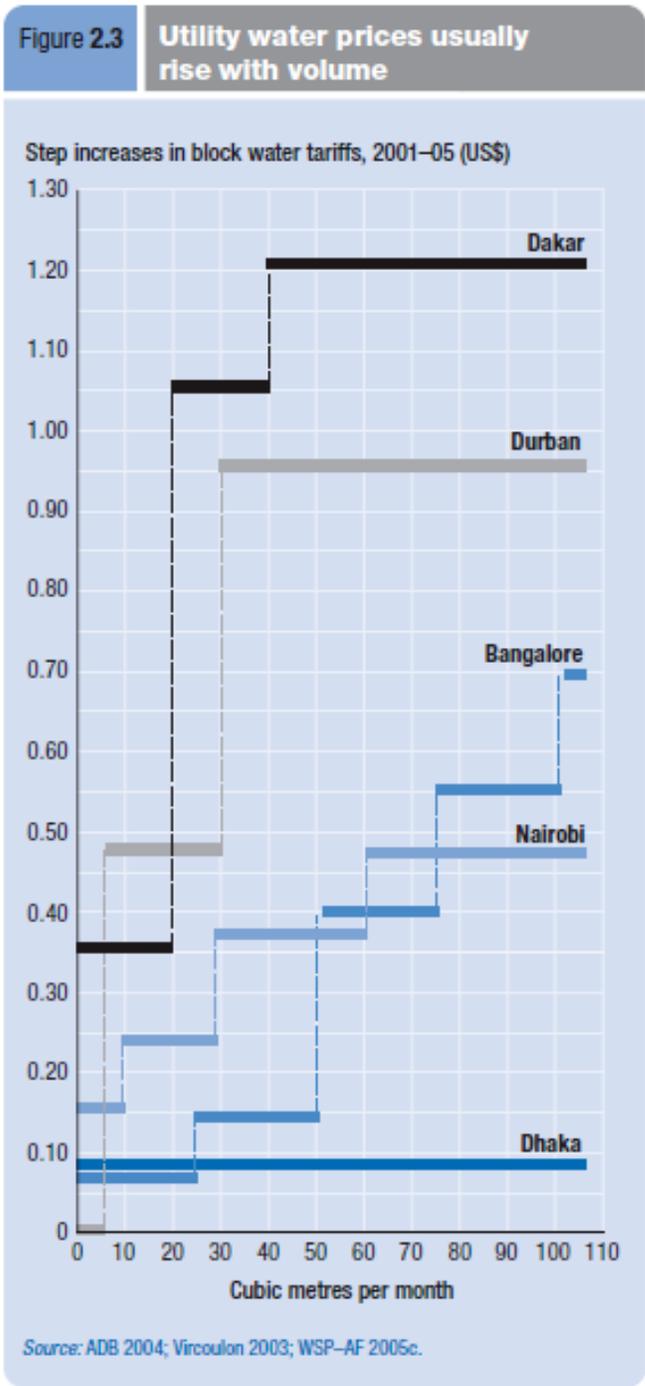
Figure 6. Block tariff structure across cities in developing world. Durban compares unfavourably with other cities for low water consumption (after FBW) (UNDP, 2006).

One additional barrier to water access for poor Durban residents flows from particular assumptions about water users engrained into water policy. Government officials commonly refer to developing a 'culture of payment' or, similarly, eradicating a 'culture of non-payment' among poor water consumers, generally those in Black townships or rural areas (Education and Liaison Officers at eThekwini Water and Sanitation, personal communication, August 25, 2011; Loftus, 2005). The culture of non-payment refers to residents who, during apartheid, received free water from the government, and before that from natural water sources. The implication is that some poor (particularly Black) South Africans are able to pay for the water they use but choose not to because they feel they should not have to pay, which is an unfounded and slanderous assumption (Loftus, 2005). Residents can hardly expect the government to strive to improve water access when non-payment is viewed in this light. Perhaps the biggest indicator that the government frames water access this way is in its on-the-ground approach to water access and protection.

In the effort to conserve water, the government does not encourage wealthy, high-volume consumers to be less wasteful. Instead, the government encourages poor, low-volume consumers to consume less, sometimes by force through disconnection or other similar strategies. Wasteful consumers (e.g. homeowners who use far more water than their household needs reasonably require) are not treated as problematic by government as long as the water is paid for in full (Education and Liaison Officers at eThekwini Water and Sanitation, personal communication, August 25, 2011; Bond, 2010; Loftus, 2005). As long as the government views poor, non-paying residents as culprits rather than victims, it follows that government solutions to water access problems will be aimed at forcing residents to pay, rather than at helping to give them the ability to pay and ensuring adequate water is available for them.

Instead of the government's current 'blame the poor' mindset, Bond (2010) suggests that wealthy, high-volume consumers should be charged a premium for what he calls "hedonistic use." With this he refers to those who use excessive, wasteful amounts of water because they are not financially induced to consume more responsibly. With a premium charge for hedonistic use, those who curb their consumption as a result would help to conserve water in Durban's limited reserves and leave more for those at the low-consumption end who need it. Those who simply accept the premium charge and do not curb their usage would further subsidize those at the low-consumption end, allowing households a greater volume of FBW each month. The logic behind this is that a necessary, yet finite, resource such as water belongs to all human beings who must all share the same resource to live; therefore a resident who takes much more than he/she needs is threatening the livelihood of those who cannot afford even small amounts (Bond, 2010). So, whether it be from disconnections, tariffs, pricing structure, or even the government's apparent anti-poor mindset, many Durban residents still face a number of unfortunate barriers to adequate water access. The residents' responses to these difficulties constitute a core focus of this paper.

1.2. Research design and methodology

This project includes a case study, which focuses on residents' responses to water insecurity in Durban in particular. The case study method is used to deliberately examine contextual conditions, believing them to be useful to the phenomenon of study, in this case water access (Creswell et al., 2007). With the Durban case study (chapter 3), I build on and illustrate my analysis of the water access debate between the human right to water and water commons frameworks (chapter 2). In doing this, I contribute to the understanding of water access struggles in Durban, as well as to the water access literature more broadly.

To do this, I mainly use secondary literature by a variety of academic writers to inform my research. I have scrutinized literature on water as a human right and water commons frameworks – and the debate between them – in both theoretical and context-specific forms to allow for breadth of analysis. By fully engaging with what scholars have written about the two frameworks, I am able to delve further into literature on how the frameworks operate on the ground in Durban. This paper also draws from semi-structured interviews and focus groups[6] I conducted in Durban, as well as document analysis, which I use to investigate the government's perspective on the city's water issues. I conducted my fieldwork from June to August of 2011 in Durban, with one additional semi-structured interview conducted in December of 2011. During June and part of July of 2011, I interned with a local NGO, the South Durban Community Environmental Alliance (SDCEA). This affiliation served as my primary source of networking with Durban residents, via meetings, workshops, and other events, which led to the majority of my interviews and focus groups via a snowballing technique. During interviews and focus group meetings, participants and I discussed water security issues facing their communities, namely how they or other community members cope with these issues, what solutions existed, and what the respective roles of government and community should be in order to improve water access. For the purpose of this study, I focus on participants in uMlazi, eThekwini's largest Black township.

I conducted a total of 16 one-on-one, semi-structured interviews with Durban residents, one of which was a key informant interview with a community scholar at the University of KwaZulu-Natal's Centre for Civil Society. Given the focus on *resident* responses, interviewing Durban residents is an effective way to give them a voice in this study.

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[6] I use pseudonyms in place of interview and focus group participants' actual names in order to protect their privacy.

Semi-structured interviews are a useful tool because they have "some degree of predetermined order but still [ensure] flexibility in the way issues are addressed" (Dunn, as cited in Longhurst, 2003, p. 119). They allow participants to answer questions freely and creatively (Longhurst, 2003). Semi-structured interviews provide answers to my research questions, while also inviting additional commentary and personal narratives that the participants find significant, thus allowing for data that are both focused and general. This is particularly important given my status as an outsider to Durban and South Africa, as participants' personal stories helped to familiarize me with life in Durban.

Along with semi-structured interviews, I conducted three focus groups with Durban residents, including one focus group that consisted of four female members of eThekwini's Water and Sanitation Department. Three of these department members are education officers who run workshops on water and sanitation in schools and community halls across the municipality. The fourth department member in this focus group is a liaison officer who helps to relay concerns or information between communities and the municipality. All four Water and Sanitation Department members are in different communities almost daily and therefore possess vast first-hand experience with communities across the municipality, though the focus of our session was predominantly on uMlazi.

Focus groups allowed me to generate group discussion around water security that is relatively "non-directive, allowing the group to explore the subject from as many angles as they please" (Longhurst, 2003). The same rationale for conducting semi-structured interviews applies for focus groups, with additional benefits owing to the 'group' nature of focus groups in which "collective sense is made, meaning negotiated, and identities elaborated through the processes of social interaction between people" (Wilkinson, as cited in Barbour, 2007).

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Lastly, I employ document analysis to add to my findings. Document analysis ensures that public accounts, rather than merely private accounts, are factored into the study (Ritchie, 2003). This adds breadth as well as an important perspective to the study. I draw on the website of the eThekwini Water and Sanitation Department, which is responsible for providing water to eThekwini residents (eThekwini Municipality, n.d.). Analyzing documents as such allows for the government's particular perspectives to be taken into account. It also allows me to delve deeper into official stances on various water access strategies. Not surprisingly, government favour lies explicitly with appealing to government-sanctioned rules and expectations, rather than looking past inadequate laws and seeking water access through other means.

1.2.1. Positionality

In terms of positionality, it is important that I acknowledge the significance of my status as a young, White, male, and non-South African outsider. Additionally, given my status as a researcher, I must always be cognisant of the power relations that are necessarily a part of the relationships I had and still have with participants. During interviews and focus groups, it was essential that I not abuse my privileged position as a researcher, and that I respect the differences between the participants and myself, such as those based on age, ethnicity, gender, and nationality. The numerous differences between the participants and myself may have caused them to respond differently than they would have if I were an 'insider.' Certain information may have been withheld or added due to my perceived expertise as a graduate researcher or my perceived ignorance as an outsider, such as specific details regarding South Africa, the government, or water access barriers. For instance, during one particular interview, the participant assumed great knowledge of government operations in general on my part, and asked

me (rather than the other way around) what I think the South African government needs to do to improve conditions for residents. Conversely, another participant informed me of the basics of apartheid and recent South African history, as if my outsider status would prevent me learning this information prior to fieldwork. Nevertheless, if we understand knowledge as situated (e.g. Haraway, 1988; Stoetzler & Yuval-Davis, 2002), these differences do not disqualify my research findings but merely highlight the particular perspective from which the findings emerge.

During the interviews and focus groups, I never felt uncomfortable or unwelcome, perhaps due in part to my affiliation with SDCEA. This affiliation, which served as my primary source of networking, likely garnered me a degree of trust and rapport with local participants. I assured participants that their identities will be concealed with pseudonyms and that all collected data will be stored on my password-protected computer and in my private email account. Interested participants will also receive copies of this finished paper so they can see the product of their participation.

1.2.2. Limitations of the study

In addition to my outsider status as mentioned above, other limitations of this research exist. My inexperience as a researcher may have caused me to misstep where an experienced researcher would not have. For example, a more experienced researcher may have improvised better during interviews and focus groups or more effectively used snowballing to generate contacts – these are skills that I learned in the field. I prepared adequately prior to fieldwork in order to minimize the effects of this limitation as much as possible. I was also limited with regard to money and time – the latter being the more significant. Due to research funding, my financial limitations did not often affect the work I could do in the field. However, my temporal

limitations meant that I had only three months to conduct research. My time spent interning with SDCEA further reduced the amount of time I had to conduct interviews and focus groups. As a result, I planned many interviews and focus groups ahead of schedule and was open to flexibility if requested by the participants. In terms of conceptual limitations, a number of limitations arose that altered the essence of the project – I discuss this in the following section.

1.3. The project's evolution

This research project has taken several forms since its inception in 2010. What began as a project about water privatization evolved into a project more focused on the residents and organizations most affected by water insecurity. I entered the field with the intention of looking primarily at what local NGOs are doing to combat water insecurity. Upon arrival, I discovered that Durban's NGO presence, while strong, was not as focused on water insecurity as I had at first imagined. This caused me to refocus my project on residents themselves, as opposed to NGOs.

I entered the field planning to focus on five communities in South Durban that span the racial spectrum, with the intent to focus on how issues of differing racial-socio-economic identities dictated responses to water insecurity. During the fieldwork, I interviewed residents from various communities in Durban to compare water security issues across the city. Identity did not appear to be a leading factor in how residents respond to water insecurity. So, I decided to focus on a specific community within South Durban – uMlazi – as the water problems there were widespread and the interviews and focus groups were fruitful.

This research project also shrank in size from a thesis to a major research paper. This is due to the fact that I lacked sufficient, focused data from my interviews and focus groups, in

addition to the shortage of key informant interviews. For these reasons, the project is predominantly literature-based, with my interviews and focus groups serving as important, complimentary evidence.

1.4. Project objectives

Through this project I aim to contribute to understanding of water insecurity in Durban and South Africa, as well as more broadly. In particular, I contribute to the water as a human right vs. water commons debate that scholars, activists, government officials, and others are embroiled in. As I demonstrate, this is a debate that goes well beyond the pages of academic writing and affects countless people across the planet who live the reality of water insecurity every day.

In the chapter that follows, I outline the competing frameworks in the debate. I focus on the two main academic frameworks for responding to water insecurity – the water as a human right and water commons frameworks. I thoroughly examine each framework, beginning with theory, and advancing to how these frameworks are used to think about water access in general and in South Africa in particular. Each framework has advantages and disadvantages, and each framework appears to be largely opposed to the other. Yet, the two frameworks also come together at times, becoming synthesized into a two-sided framework of its own (see Clark, 2012; Linton, 2012; Mitchell, 2012; Staddon, Appleby & Grant, 2012). Compelling cases are made in favour of each, though there is no clear 'correct' framework for improving water security.

The third chapter delves into the residents' responses to water insecurity in Durban, drawing from secondary literature, semi-structured interviews, focus groups, and primary document analysis. This chapter investigates whether the two frameworks are useful in

describing resident responses on the ground in Durban. I examine various coping strategies employed by residents to overcome water insecurity. These strategies differ drastically, ranging from accepting government assistance to violating the law. Despite this, I argue that many of the residents' responses reflect either the water as a human right framework or the water commons framework, at least partially.

In the final chapter, I wrap up my research findings and explore future lines of inquiry regarding water insecurity. Further, I look to how the water as a human right and water commons frameworks might be utilized to improve water access in the case of Durban, of South Africa, and more globally.

2. Frameworks for understanding water insecurity

Water security – an issue of urgency within and beyond academia – can be viewed through different lenses. Two prominent lenses, or frameworks, used by scholars are the water as a human right and water commons frameworks. By engaging with the human right to water framework, there are a number of avenues through which citizens can, in theory, ensure they have sufficient water access. However, some scholars feel that this framework is ineffective and that the water commons is a more fitting alternative. In employing the water commons framework, new potential avenues to water access are revealed, however not without faults. Going further, some scholars advocate combining these two frameworks into a hybrid framework, arguing that each contains useful elements but is not sufficient on its own. Thus, this chapter answers my first research question, "*What are the predominant frameworks used to address water insecurity and what are the strengths and weaknesses of each?*" Given that these frameworks are prominent (and promising) potential solutions advocated by progressive scholars, an investigation into the frameworks provides insight into how effective they can be at improving water access for people in need. A greater understanding of the effectiveness of the frameworks can help to steer academic and activist efforts towards solving the water security crisis that grips South Africa and the world. I begin by exploring human rights.

2.1. Human rights

The human right to water framework is built on the foundation of human rights in general, as a concept and a framework. Thus, an understanding of human rights is essential for a full understanding of the human right to water framework. To quote Cranston, "human rights is a twentieth-century name for what has been traditionally known as natural rights or, in a more

exhilarating phrase, the rights of man" (Cranston, 1973, p. 1). In other words, one is owed x simply by virtue of being human – nothing more is required. However, human rights are much more nuanced than this common definition would indicate. Broadly speaking, a right can be seen as a relationship between two entities – the right-holder and the duty-bearer – with regards to the object of the right, whatever that may be. Establishing human rights can be controversial, yet once a right to x is established and granted, the right-holder is categorically entitled to x so long as the right exists. If the duty-bearer denies x to the right-holder, the former has directly violated the rights of the latter. In this case, the right-holder is authorized to make claims for x so that it may be granted to him/her (Donnelly, 2003; Freeman, 2011).

2.1.1. Human rights within South Africa

Human rights play an important role in post-apartheid South Africa. What follows is an examination of literature broadly addressing the benefits and pitfalls of human rights in South Africa, as the right to water is only one of several rights granted in the national Constitution. An understanding of how human rights play out in South Africa allows for greater insight into how the human right to water can be expected to play out. Liebenberg (2005) addresses the short- and long-term benefits of human rights discourse in South Africa. She argues that rights discourse allows for socio-economic advances, such as improved water access. Her analysis is based on two essentially opposite types of strategies – affirmation and transformation. Affirmative strategies work within the existing legal system with the goal of improving unjust outcomes without changing the existing socio-legal structure itself. Transformative strategies, on the other hand, see the unjust socio-legal structure as a root problem on its own and therefore aim to

redress broader issues by first changing the existing system itself. Each has its advantages and disadvantages.

According to Liebenberg (2005), affirmative strategies include redistribution programs that, while quickly and directly aiding those in need, can result in program beneficiaries being perceived as needing handouts and getting unfair advantages. At the same time, transformative strategies, while ideally removing the need for redistributive programs in the long run, may seem remote for those in immediate need and may be difficult to mobilize community action around. Liebenberg argues that rights discourse, while initially being affirmative, can have transformative effects when consistently utilized. Social program beneficiaries find themselves with more leverage as a result of the programs, which gives them the social and economic capital that ultimately allows them enhanced participatory capabilities. This, according to Liebenberg, exposes the socially constructed nature of human rights and underscores the ability to create new rights over time that promote greater social equity. Thus, Liebenberg argues that immediate, limited improvements *and* long-term, structural improvements are possible through a human rights discourse, such as the human right to water. Other scholarly work, even work in favour of a human rights-based approach, is more critical of the disparity between the rights on paper and those on the ground for South Africans.

Pieterse (2007) critically addresses the effectiveness of using human rights to address socio-economic injustice, such as poor water access in South Africa. He argues that rights discourse contains disadvantageous as well as advantageous elements. Rights discourse is largely disempowering, according to Pieterse (2007), because rights are generally developed, interpreted and enforced by institutions that are firmly located within the bounds of the socio-politico-economic status quo. He acknowledges further that rights discourse, "through its tendency

towards abstraction and proceduralization, may have the effect of removing the focus of rights-based, socioeconomic litigation from the concrete experiences of material deprivation that belong at its centre" (Pieterse, 2007, p. 801). Yet, despite the overwhelming drawbacks, he suggests that South African scholars and activists not abandon rights discourse, as it nonetheless contains transformative potential, as described below.

Rights discourse, he argues, is also "empowering in that it affirms the inherent dignity of rights-bearers and awards political legitimacy to their demands for the satisfaction of their otherwise overlooked material needs" (Pieterse, 2007, p. 797). Pieterse contends that not only do human rights have the potential to improve South Africans' lives, but also that the Constitutional Court is equipped and empowered to realize this potential. If rights discourse is to be effective in South Africa, scholars, activists, and members of the Court must clarify "the concrete content of entitlements embodied by socioeconomic rights" and explicitly use this content to address the material needs of South Africans on the ground (Pieterse, 2007, p. 799). Finally, scholars, activists, and the Court have a responsibility, he argues, to ensure that human rights are made more meaningful not simply from the top down but, more importantly, from the bottom up with participation at the ground level. This would ensure that rights discourse is informed by the experiences and needs of those who stand to benefit from the granting of such rights, such as poor residents without adequate access to clean water. Before looking at this in South Africa, an investigation into the water as a human right framework more broadly will allow a fuller understanding of the role the framework plays in the South African context.

2.1.2. Water as a human right

The notion of viewing water as a human right has evolved over decades, gaining momentum along the way and becoming a commonly used framework by those seeking to improve water access globally. The human right to water was born out of international human rights conventions in recent decades, which were founded on the premise that establishing human rights will improve and maintain levels of human well-being. The rationale behind recognizing a human right to water follows in the same vein. Because human beings must have access to water in order to live, water must be granted to everyone in order to minimize avoidable human death. If water is universally accepted as a human right, governments of the world will, in theory, be obligated to provide adequately for their citizens. If citizens with the right to water are deprived of it, they have legal recourse to attain it. Thus, the water as a human right framework gained (and still maintains) support based on its image (whether real or perceived) as a fail-safe mechanism for eradicating water insecurity (Dellapenna, 2008; Gleick, 1996; 1999; 2007; McCaffrey, 1992; 2005; Winkler, 2012).

The human right to water was first mentioned explicitly in the action plan for the 1977 United Nations (UN) Water conference in Mar del Plata, Argentina, which stated that all peoples have the right to access water sufficient to meet their basic needs. The right to water was further explicitly stated in various action plans, including Agenda 21, adopted at the 1992 UN Conference on Environment and Development in Rio de Janeiro, Brazil (Calaguas, 1999; UN, 2010). In 2010, for the first time, both the UN General Assembly (UNGA) and the Human Rights Council (HRC) adopted resolutions formally recognizing water as a human right, though this is non-binding (UN News Centre, 2010; Winkler, 2012). Thus, the discourse on the human right to water began on the international stage and has evolved and strengthened over decades,

gaining support and influence. After building momentum for decades, scholarly attention would eventually contribute to the discourse, helping to solidify the human right to water as a predominant framework in aiming to solve the world's water crisis.

The human right to water was first addressed academically by McCaffrey (1992), who argues for the importance and urgency of treating water as a binding, universal human right, based on the worsening global water crisis and on his interpretation of landmark UN documents. McCaffrey declares that the severity of global water insecurity in itself mandates a global response, and thus access to clean water should be recognized as a human right. Furthermore, he argues that the human right to water can and should be inferred from earlier landmark UN documents that do not directly identify water as a human right, and therefore that water has been a human right, in a sense, for decades.

First, according to McCaffrey (1992), the human right to water was implied in Article 25 in the UN's Universal Declaration of Human Rights, which states that "everyone has the right to a standard of living adequate for the health of himself and his family, including food, clothing, housing and medical care and necessary social services…" (UN, 1948). Articles 11 and 12 of the International Covenant on Economic, Social and Cultural Rights (UN, 1966) are similarly worded. The implied human right to water in these landmark documents stems from the fact that water is necessary for any standard of living, and in fact for life itself. Furthermore, the use of the word "including" in the above list of rights means it is not exhaustive. McCaffrey also argues that if one interprets "food" in the above list to mean sustenance, the human right to water can again be inferred. It can likewise be inferred via the fact that water is required for agriculture, which creates food. Therefore, argues McCaffrey, the human right to water has existed on numerous grounds, even if indirectly, since 1948. Others have since echoed McCaffrey's

conclusions (e.g. Cahill, 2005; Calaguas, 1999; Dellapenna, 2008; Hardberger, 2005; Winkler, 2012).

Gleick (1996; 1999; 2007) is also at the forefront of advocacy for the water as a human right framework. He makes recommendations for international implementation of the right to water, such as will most effectively benefit humanity. There is no universal answer to how much water should be granted to each person, or what the specific goal(s) of granting water should be. Should it be enough solely to sustain life? To be self-sufficient? To attain some level of dignity or quality of life? These are not easy questions to answer, given the complex web of social, political, environmental, and economic variables that differ from place to place (Gleick, 1999). However, Gleick considers international discussion on development when coming up with specific recommendations. In so doing, he broadly defines the human right to water as every human being on earth being able to meet their most basic needs, namely drinking, cooking, bathing, and satisfying sanitation needs. Of course, the amount of water needed to satisfy these needs differs from place to place, so no one minimum is exactly the same as another. While acknowledging this, Gleick recommends a minimum of 5 litres of clean water per person per day for drinking, 20 litres for sanitation and hygiene, 15 litres for bathing, and 10 litres for cooking, totaling 50 litres per person per day. In cases of competing use, he advocates that these most basic of needs be addressed first before moving on to other uses (Gleick, 1999). This initial wave of scholarly attention to water as a human right was followed shortly after by a second wave.

This second wave of scholarly work on water as a human right emerged as a response to market environmentalist literature (e.g. Rogers et al., 2002; Winpenny, 1994; 2003), which argues that conservation of nature is best left up to private companies who can more efficiently allocate environmental goods (e.g. water) than can the government. Environmental goods are to

be treated as economic goods and priced at full cost, which, in theory, will facilitate improved resource conservation, thus leaving a greater amount of natural resources to be spread more equitably amongst those in need. Some market environmentalist literature focuses specifically on treating water as an economic good (e.g. Haddad, 2000; Johnstone & Wood, 2001). In response to these arguments – and the increasing global presence of private, for-profit multinational water distribution corporations – there emerged a second wave of scholarly advocacy for water as a human right (e.g. Finger & Allouche, 2002; Goldman, 2005; Johnston et al., 2006; Morgan, 2004a; 2004b; 2005). This literature opposes the notion of treating water as an economic good and insists that all humans deserve the right to water because water is necessary for life. Further, this second wave argues that water privatization should be avoided, as the private sector's focus is on financial returns and not on ending water insecurity. Treating water as a human right, it is argued, would place an onus on governments to provide to those in need – very reminiscent of earlier calls for the human right to water.

Bakker (2007; 2010; 2012) cites a number of problems with the standard conceptualization of the human right to water that limit the framework's usefulness and push her in the direction of advocating for a water commons. Aside from being individualistic and compatible with the private sector, Bakker accuses human rights of being anthropocentric and state-centric. The water as a human right framework does not recognize non-human rights, and as a result "the provision of a human right to water may, ironically, imply the possibility of further degradation of hydrological systems on which ecosystems (and thereby human beings) depend" (Bakker, 2010, p. 149). Furthermore, the human right to water is state-centric as it puts community members entirely at the mercy of the government – it suggests that citizens behave in

certain ways only because the state either allows or disallows it, thus removing agency from the people on the ground (Bakker, 2007, 2010, 2012).

The focus of scholarly work on water as a human right is mainly at the global scale. Advocates push for universal, international implementation of the human right to water framework so that state governments will ensure the basic water needs of their citizens. Given that the UNGA and HRC resolutions are so recent, it is too soon to know if they will inspire national governments to take further action. Nevertheless, advocates of the human right to water argue that recognition of this right can pressure governments to ensure water access for their citizens, such as in South Africa.

2.1.3. *Water as a human right within South Africa*

The human right to water in South Africa is a special case, given that South Africans are not only granted the right to water via the UNGA ruling, but also via their own Constitution. As a result, scholarly literature on the human right to water in the South African context focuses on actually receiving from the government that which the government granted to them on paper.

Glazewski (2002) argues that the South African Constitution offers exciting possibilities for a successful legalistic route to greater environmental justice, including improved water access for South Africans. The human right to water, as guaranteed in the Constitution, holds government accountable and "imposes potentially onerous obligations on the state," argues Glazewski (2002, p. 172). His argument is reflective of much scholarly advocacy for the water as a human right framework in that it focuses largely on state obligations to improve water access.

Bond and Dugard (2008) argue that if the water as a human right framework is to succeed in South Africa, significant limitations must be overcome. For instance, the constitutionally

granted human right to water can only go so far, argue the authors, so long as the Constitutional

Court fails to advance a pro-poor direct access practice (the provision of assistive means for

poor, would-be litigants to bring forth litigation to the Court). This failure is evident despite

direct access allowances in the Constitution (RSA, 1996, ss. 167.6). According to Dugard

(2006), South Africa's enormous socio-economic inequality makes the legal system and the

Constitutional Court very remote for many of its poorest citizens from the outset. To quote her

near-scathing remarks:

> [T]he Court's record over the past ten years reveals a practice of restricting, rather than expanding, the conditions of direct access. I surmise that this has been to the detriment of the Court's ability to act as an institutional voice for the poor as, increasingly, only empowered individuals and groups have the resources to bring litigation through the judicial system to the Constitutional Court… In the absence of legal aid for constitutional matters, poor people are largely unable to take cases through the normal judicial process, which is both lengthy and costly (Dugard, 2006, cited in part in Bond & Dugard, 2008, p. 266).

The human right to water, in other words, is only useful insofar as it can be exercised by those in

need of improved water access. Poor Durban residents, however, face considerable difficulty

standing before the Court and thus are unable to fully exercise their right to water.

Bond and Dugard (2008) identify another key problem with the water as a human right

framework as it exists in South Africa. They critique the Constitutional Court's lack of

consistency from case to case. The Court interprets cases, argue the authors, in a way that

obfuscates, rather than elucidates, the relationship between the citizens' rights as granted in the

Constitution and what citizens can expect by legally exercising these rights. The Constitutional

Court has taken advantage of the 'reasonableness' clause in the Constitution that accompanies

water and other rights declarations. This enables the Court to declare that certain actions, which

may in reality amount to denial of the right to water, be declared 'reasonable,' and not

unconstitutional, for a variety of reasons such as unavailable resources. A complimentary point is made by South African scholar/activist Ashwin Desai:

> If one surveys the jurisprudence of how socio-economic rights have been approached by our courts there is, despite all the chatter, one central and striking feature. Cases where the decision would have caused government substantial outlay of money or a major change in how they make their gross budgetary allocations have all been lost. Cases where money was not the issue… or where what was being asked for was essentially negative – to be left alone – the courts have at times come grandly to the aid of the poor. And even to get some of these judgments enforced by the executive is a story in and of itself (Desai, 2010, cited in Bond, 2012, p. 201).

Thus, the Constitutional Court's decision of whether or not to grant the right to water may be influenced by factors other than whether or not the particular litigant presents a compelling case, suggesting potential miscarriage of justice.

Tired of the Constitutional Court's status quo, Bond and Dugard (2008) argue that the Court should clearly delineate the scope of constitutional rights and objectively measure rights claims against established baselines. The Court's method of rights interpretation has resulted in no "direct, substantive relief to the applicants, an outcome that gives little incentive to poor litigants to seek relief through constitutional litigation" (Dugard & Roux, 2006). However, they argue that there is still hope for successful implementation of the human right to water.

Bond and Dugard (2008) argue that, as problematic as rights discourse may seem, it does still allow South African society at large to examine whether human rights obligations, for water and other rights, are being trumped by South Africa's steadfast policy of cost recovery. In the same vein, Roithmayr (2000) points out that, by simply framing claims as human rights claims, a plaintiff in South Africa can make a compelling case that the Constitutional Court should prioritize his/her claims over competing economic and administrative interests, as a 'right' implies a special type of claim. Even though limitations exist to prevent full effectiveness of the human right to water, Bond and Dugard (2008) assert that a justice-based human right to water

discourse can help to uncover problems and contradictions within the current status quo of full cost recovery. Further, if the abovementioned faults are mended, perhaps the human right to water can have more meaning for South Africans on the ground. In sum, the water as a human right framework may ultimately provide poor South Africans with legal recourse for attaining sufficient water access. However, at the moment there appears to be a disconnect between the constitutionally granted human right to water and poor South Africans' water access, suggesting the failure of the water as a human right framework. As a result of the perceived failure of this framework, some scholars have moved past rights discourse to a water commons framework as a potential way forward.

2.2. Commons

Just as the human right to water framework is built upon human rights in general, so the water commons framework is built upon the general concept of the commons. Likewise, a full understanding of the water commons framework is dependent on an understanding of the commons itself. Various definitions and understandings of the commons exist, all relating to communal land, resources, or other goods, whether tangible or not. For instance, Hardt (2009) very broadly defines the commons as, on one hand, "the earth and all of its ecosystems, including the atmosphere, and the oceans and rivers, and the forests, as well as all the forms of life that interact with them," and on the other hand, as "the products of human labor and creativity that we share, such as ideas, knowledges, images, codes, affects, social relationships, and the like" (p. 1). Hardt (2009) also asserts that the commons defies measurement, as opposed to private property. More specifically, Ostrom (1990) uses the term 'common-pool resource' to

refer to "a natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use" (p. 30).

McMurty's (1999) conception of the 'civil commons' is particularly fitting for the context of this study as it focuses on interaction between natural resources and human societies. He argues that the civil commons is a communal resource supply governed by "human agency in personal, collective or institutional form which protects and enables the access of all members of a community" to this resource (p. 204). This differs from what he calls 'the commons as nature-given resource,' which is simply a resource or piece of land to which beings in a given region have open access, without social regulation, management, or control. The key distinction is the social aspect; a natural commons becomes a civil commons when it is managed, preserved, and controlled by human acts and social rules so as to enable on-going access to the resource among community members (McMurty, 1999).

The commons was once thought to be a formula for resource exhaustion, thanks largely to Hardin's (1968) theory of the 'tragedy of the commons,' which states that communal access to a resource necessarily leads to the resource's overuse and eventual depletion. According to Hardin, individuals' desires for common goods will bankrupt the communal supply, and only by establishing private property relations to regulate natural goods can this crisis be averted.

Yet, his theory has been heavily critiqued by scholars in subsequent decades (Barnes, 2006; Johnston, 2006; McMurty, 1999; Monbiot, 1994; Shiva, 2002). They argue that Hardin incorrectly assumes that the commons is unmanaged and used haphazardly by those in the community. Contrary to Hardin's theory, however, communities have been successfully regulating, preserving, and controlling common land and resources throughout history, including the present. Critics make clear the important distinction between the unregulated (natural)

commons that Hardin imagined and the regulated (civil) commons that have long been successful means of equitably allocating resources. These critiques suggest that the notion of the commons should not be ignored as a possible route to improved community access to resources such as water. Decades after Hardin's seminal work (and after its declining influence), there has emerged a renewed push for exploring the possibilities that a commons framework has to offer, in a variety of ways and on various scales. For example, the commons framework has been recently employed by scholars and activists with reference to water access.

2.2.1. Water commons

Emerging from these larger debates on resource commons are more specific debates about water commons. The human right to water framework is being challenged by those who feel that the water commons is a more effective framework for attaining improved water access. One of the most prominent advocates of the water commons framework as a move toward improved water access is Karen Bakker. Bakker (2007; 2010; 2012) responds to anti-privatization sentiment from scholars who hone in on 'public vs. private water' as the crucial debate and who insist on the human right to water as a solution to the neoliberalization and commodificiation of water. She demonstrates that this debate is misguided and that, private or public, water will not necessarily be secure or insecure. According to Bakker, though literature on neoliberal nature often contrasts 'commodity' with 'human right,' this is misleading "insofar as the term 'commodity' refers to a property rights regime applicable to resources, and human rights to a legal category applicable to individuals" (Bakker, 2007, p. 436; 2012, p. 25). This individualistic human rights discourse, she acknowledges, stems from a libertarian, Eurocentric

philosophy. She declares that water commons is a far more appropriate, albeit less widely used, antonym to water as a commodity.

On the whole, Bakker (2007; 2010; 2012) identifies three reasons why the water commons framework is an appropriate way forward. First, as water supply is subject to a number of market and state failures, it must be the communities that depend on the water that become involved and manage water wisely. Second, because water has important and unique cultural meanings to communities, its provision should be led by the communities themselves rather than private companies or the state. Third, the water used by a community is tightly linked to the human and ecological health of that community. Only through a water commons, she argues, can a community protect its ecological and public health. Yet, Bakker stresses that, while a water commons allows for community empowerment and control over water, government still has a role to play.

Regarding implementation, Bakker (2007; 2012) argues that a progressive water commons strategy would reform state governance, rather than bypassing government oversight altogether. At the same time, governments should explore local commons models alongside community members, accounting for differences on a community-to-community basis. The models are necessarily varied – based on the particular community, certain aspects of the water commons will take different forms, building on local resource management and cultural norms. She suggests that various water commons models may directly address the anthropocentrism inherent in the human right to water framework to various degrees, such as through scientific expertise or eco-cultural reverence. Various models may also place varying degrees of emphasis on decentralization, allowing varying degrees of community – rather than government – control.

Trawick (2001; 2002) is another scholar who contributes to the water commons framework. One particular contribution he makes to the framework is a list of principles for successful water management at the local community scale. These are principles developed through research with South American peasant communities, but principles that he argues are generally applicable to water management at the community scale. The principles are as follows:

1. Autonomy – the community has possession and control over its water;

2. Contiguity – water is distributed in a fixed, contiguous order based on geographical location within the community;

3. Uniformity – everyone receives water with the same frequency;

4. Proportionality (equity) – everyone is allowed the same amount of water;

5. Regularity – things are done in the same way, even in conditions of scarcity;

6. Transparency – everyone knows the rules and can easily detect, at any given time, whether the rules are being followed or violated (Trawick, 2002).

According to Trawick, communities around the world have, long ago, independently arrived at water commons solutions to avoid depleting a limited water source, and these solutions often include principles that are highly similar or the same as the ones he lists. Thus, because these principles have worked throughout history and continue to work today, he suggests they hold the most promise for improving water access via a water commons framework (Trawick, 2002). Yet, as compelling as the recent arguments for the water commons framework have been, scholars are quick to point out that the commons is nevertheless an imperfect solution.

One of the main critiques of the water commons, and the commons in general, is that there is a risk of romanticizing the community scale as inherently coherent and equitable, when in fact the community can be disorganized, heterogeneous and unequal (Bakker, 2007; 2012;

Bond, 2010; 2011). Additionally, in South Africa and elsewhere, some customary community practices also serve to produce and reproduce gender, age, ethnicity, and class differences and hierarchies, which sharply contrasts with South Africa's Constitution. Gender hierarchies may be particularly crippling, as it is often women who are tasked with fetching water in addition to their other domestic duties, which often require water, such as agriculture, food preparation, cleaning, and caring for family members (Loftus, 2005; van Koppen et al., 2007). Van Koppen et al. (2007) also cite rule-setting and enforcement as the 'Achilles heel' of community-based water regimes, as authority may be confusing and contested. They point out that water commons is often taken to imply a complete withdrawal of the state from a community's water management. However, in reality, the assistance and oversight from government or other external agencies, such as for funding or technological know-how, will likely be required in some form to enable a fully functioning water commons. The questions of who will rule on usage and limitations and how open the access will be to community members are also not easily answered (Meinzen-Dick & Nkonya, 2007; van Koppen et al., 2007). Thus, even advocates of the water commons framework acknowledge its nuanced, case-specific, and imperfect nature. As this renewed scholarly interest in the water commons is relatively recent, it has not been analyzed in the South African context in great detail – nevertheless a small body of preliminary literature has been established.

2.2.2. Water commons within South Africa

Bond (2010; 2011; 2012) argues that in water-scarce South Africa, sharing water in a water commons is more appropriate than demanding it as an individualized consumption norm via the human right to water. He advocates for what is known in South Africa as 'ubuntu,' which

is a Zulu/Xhosa word meaning a culture of sharing, compassion, and helping our fellow beings –

a philosophy of interconnectedness that has long existed in various parts of Africa (Bond, 2010).

Specifically, he contends that improved water access will require a water commons system that

extends both horizontally across the population as well as vertically, incorporating the extraction,

distribution, consumption, and disposal of water (Bond, 2012).

In practice, argues Bond, an effective South African water commons can take several

forms – accounting for differences between communities – but will require a unified voice to

bring it about. Speaking of future implementation, he asserts:

> Countervailing pressures that can transcend mere consumption-based rights demands, and
> tackle the full range of [neoliberal] practices that undermine water as a commons, as well
> as so many interrelated eco-social processes, are long overdue. These pressures may
> emerge through fusions of community, environmental and labour [groups] in the alliance-
> formation that necessarily occurs during eco-social justice struggles, as rights-talk meets
> its limits, and the commons appears as a new frontier (Bond, 2010).

Clearly, then, Bond feels much deliberate cooperation is necessary if a water commons is be a

reality for South Africans. As for the residents currently suffering from the failed right to water,

he supports residents using "a commons strategy, by way of resource sharing and illegal

commandeering of water pipes… during times of crisis" (Bond, 2012).

Like Bond, Roithmayr has also moved from advocating for rights discourse (Roithmayr,

2000, cited earlier) to now advocating for a commons strategy to move forward (Roithmayr,

2010). In response to the *Mazibuko* case – an example of the failure of the human right to water,

discussed in chapter 3 – Roithmayr suggests the commons framework emphasises a relationship

between wealthy and poor, white and black. To Roithmayr, "The commons reinforces the notion

that people collaboratively create neighbourhoods, cities, and countries, often for reasons other

than market motivation, and that no group should have unfairly-privileged access to the best that

these common spaces have to offer" (Roithmayr, 2010, p. 319). According to Roithmayr, the

main advantage that a commons strategy has over a rights-based strategy is the fact that the stakeholders are the community members, who are able to discuss what kind of community they want to create. She offers the example of community members agreeing to public health as a common interest, and therefore to a water commons system, given the connection between water and cholera. However, while the water commons framework seems a promising way to improve water access, both in South Africa and more broadly, some are not entirely convinced. Some scholars, in recognizing the flaws inherent in both the water as a human right and water commons frameworks, take the middle road – that is, neither strictly one framework or another, but some combination of the two.

2.3. A hybrid framework

The academic debate on water access is framed in a way that pits water as a human right and water commons as opposite and largely contradictory frameworks for improving water access. Much of the literature points in this direction, with the recent call for the water commons emerging as a response to the perceived failure of the human right to water. However, this duality is not always the case – the human right to water is arguably compatible with a water commons, whether it is an even combination of the two or one framework incorporating key elements of the other framework. Meinzen-Dick and Nkonya (2007), for instance, use the term 'communal water rights' which simply refers to community-based arrangements whereby people use water in ways that are specified by their community. The combining of the two frameworks is elaborated on further by a number of scholars, discussed below.

Clark (2012) argues that the human right to water and water commons frameworks are not opposites but are complimentary to one another and each is essential for the success of the

other – either framework on its own is insufficient and ineffective. She argues that the human right to water cannot be realized through litigation alone, as poor people in need of water are marginalized from courts due to financial and temporal constraints. Furthermore, rights discourse purely through litigation is only necessary when citizens have been unjustly deprived of the right in the first place. On the other hand, she argues that a water commons as a standalone strategy is flawed, largely because it is based on romanticized understandings of the community scale and of what a water commons is capable of on its own. Additionally, so-called community participation is often a cover for imposing pre-determined programs and policies from above, without ever seeking or heeding actual community input (Clark, 2012). The solution proposed by Clark is what amounts to a participatory, community-based version of the human right to water, which utilizes the best of both strategies. To quote Clark:

> Calling the right to water 'individualistic, anthropocentric and state-centric' [referring to Bakker, 2007; 2012] reflects a mischaracterization of the nature of social rights and contrasting it with the commons risks limiting the scope of this emerging right. Such an argument is based on a false dichotomy between the *commons* and a human right to water. Not only is it possible for the content of the right to water to incorporate much of the logic of the *commons*, this is in fact necessary for its full realization (Clark, 2012, p. 181, emphasis in original).

Similarly, Linton (2012) advocates for what he calls the human right to water from a relational perspective. This entails viewing the human right to water as a human-water relationship that transforms the identities of both humans and water. He rejects the idea that the human right to water must necessarily be defined as a relationship between each person and some fixed quantity of water, as is often the go-to definition.

Staddon, Appleby and Grant (2012) offer an argument complimentary to Clark's and Linton's – they argue against human rights as individual rights, especially in the case of water. One reason for this is that corporate personhood exists in South Africa (RSA, 1996, ss. 8.1; 8.2; 8.4), meaning corporations are able to make lawful claims for the rights granted in the

Constitution, despite the disproportionate social, political, and economic capital that a corporation is liable to possess. The authors suggest that the Lockean notion of rights, based on private property, need not necessarily be the only way of defining rights, but has simply been the tendency to date. A communal notion of rights may be more fitting, they suggest.

Instead of facing the drawbacks of an individualistic human right to water, Linton (2012) suggests we redefine 'human' as 'collective humanity' – harking back to Marx's 'species being' – and redefine water as a process (in dialectical relation to society, one altering and recreating the other) rather than a finite quantity. Defining the human right to water as communal, processual, and interrelated allows us to reformulate the human right to water as "an argument for collective decision making in respect of the water process, thus producing a rule of governance" (Linton, 2012, p. 48). This permits us to move beyond the limitations of a fixed notion of water rights and into what could be called 'water commons as a human right.'

A similar conclusion is reached by Mitchell (2012), who takes a political economy-centred approach to the human right to water. He states that in order for people and communities to improve their level of water access, they must not simply be given ownership and control over water – the inherent contradictions of capitalism that precede material inequality must be the primary focus. It is when human rights are considered strictly in terms of private property, as they so often are in a liberal democratic framework, that the human right to water can be a polar opposite to the water commons. Mitchell advocates for the radical transformation of how we imagine our relations to the entire non-human world and to our fellow human beings. Radically transforming "the way we conceive of rights in a capitalist society would challenge the very basis upon which this economic system is reproduced… [and it] would subordinate individual rights in favour of the common right to a healthy, dignified life, including the right to water"

(Mitchell, 2012, p. 90). Based on this burgeoning set of literature, it would appear that water as a human right and the water commons may not be diametrically opposed to one another after all – perhaps the solution to water access shortcomings in South Africa is some fusion of the two frameworks into one.

2.4. Conclusion

As the aforementioned demonstrates, the academic water access debate focuses primarily on the human right to water and the water commons frameworks. Advocates for each argue that one particular framework may hold an answer to water insecurity. The water as a human right framework offers the promise of government obligation to provide adequate water access, something that advocates argue should be at the heart of water policy, rather than focusing on water commodification. Building off this, the water commons framework offers an alternative to the water as a human right framework, which water commons advocates argue is individualistic and compatible with commodification. The water commons framework allows for communities to play a key role in the management and control over their water supply, which can bring about improved water access and preservation. However, this complex framework can also serve to reinforce problematic hierarchies and romanticize the community scale, proving that each framework contains drawbacks.

However, other scholars have recently synthesized these frameworks into a hybrid, arguing that this brings about new possibilities for improving water access where the other frameworks fall short. This suggests that the water as a human right and water commons frameworks may not be as conflicting as the frameworks' advocates insist. It is unclear whether a

single, optimal solution exists, but a look at how these frameworks play out in Durban in the

following chapter sheds light on the matter.

3. Responding to water insecurity in Durban

> As we speak, people are sitting here with high bills. These are pensioners… As tariffs increase, people's lifestyles go from bad to worse. There is a huge gap between the tariffs and the amount of money people are making, which will lead to more disconnections… I think you have targeted a very important aspect of life – water is a very crucial topic. One cannot say 'it does not relate to me.' Everyone on earth needs it ('Bogdan,' personal communication, August 24, 2011).

This quote from an uMlazi resident evidences the urgent and far-reaching effects that water insecurity has on members of his community. For this reason, it is important to move beyond the academic debates and onto the ground to observe how residents strive to attain adequate water access in their times of need. These debates focus on two predominant frameworks – water as a human right and water commons. Having established this in the previous chapter, I move now to the case study of investigating whether these frameworks actually describe or make sense of how poor Durban residents actually respond to water insecurity. In other words, this chapter addresses the second main research question, "*How do these frameworks help to explain water struggle in Durban?*" I do this by bringing together a review of the literature with document analysis and residents' views obtained in semi-structured interviews and focus groups. In so doing, I explore whether and in what ways residents' strategies for improving water access reflect the theoretical frameworks, where they diverge, and what this means for the overall effectiveness of the frameworks. Poor residents who cannot afford adequate water access respond to their situation via various strategies, most commonly seeking assistance from the municipality (to receive free basic water [FBW]), Constitutional Court litigation, illegal waterline connections, and/or using informal settlement standpipes. Through an examination of these strategies, we gain insight into the two main frameworks as well, as described below.

To be sure, general frameworks (i.e. water as a human right and water commons) are distinct from strategies residents use on the ground to respond to water insecurity. However, these strategies reflect elements of the general frameworks, either by utilizing the constitutionally granted human right to water or by creating partial, makeshift forms of water commons. In the case of the water commons framework, the related strategies diverge in important ways from the framework as well, suggesting areas of future investigation. Linking the general frameworks with the residents' responses sheds light on the effectiveness of the frameworks on the ground, allows for analytical clarity, and may indicate some directions for future struggles towards improved water access.

I link the first two strategies above – municipal provision of FBW and Constitutional Court litigation – to the human right to water framework because these strategies hinge on the right to water granted in the South African Constitution. The FBW is the municipality's (attempt at a) safeguard of the constitutionally granted right to water, while litigation in the Constitutional Court is a means of seeking retribution for infringements on constitutionally granted rights, such as the right to water. For many residents, these strategies are not fully effective and thus residents often seek out alternative means of attaining adequate water, suggesting shortcomings in the water as a human right framework.

The other main strategies – illegal connections and using informal residents' standpipes – share certain key features of the water commons framework, such as increased community control of and access to water. Yet, these strategies also differ in significant ways from this framework. For instance, the strategies lack social regulation and a focus on preservation. These strategies allow residents to bypass the failed human right to water and attain adequate water access. While these strategies have proven largely successful in improving water access, they are

also inherently unsustainable and partial solutions to water insecurity. Yet, the problems associated with these strategies are not reflective of problems with the water commons framework more broadly, but rather with the particular strategies used. Because the strategies only partially reflect the water commons framework, we cannot use them to fully evaluate it. Nonetheless, they give us some insight into the framework's strengths and limitations. Lastly, as shown in the previous chapter, some scholars have even combined these frameworks into a hybrid that utilizes elements of each framework.

Despite the existence of this hybrid framework in the literature, there does not appear to be any evidence of such a framework in Durban. As my investigation into resident responses to water insecurity demonstrates, residents tend to either utilize the human right to water or abandon it altogether. When residents undertake alternative strategies that partially reflect the water commons framework, it is because they know (perhaps from first-hand experience) that the human right to water is not likely to provide them with sufficient water. In the analysis that follows, I begin with a look into the human right to water framework in Durban.

3.1. Water as a human right

Water as a human right continues to be the official government-endorsed framework surrounding water access in Durban and in South Africa. When responding to water insecurity, Durban residents have a variety of strategic options at their disposal. I begin with an analysis of response strategies that reflect the human right to water framework – seeking FBW from the municipality and Constitutional Court litigation. Durban residents, when unable to afford to pay for the water their household uses, are encouraged by the government to go downtown to the municipal office – eThekwini Water and Sanitation – to discuss options for how to move

forward. The municipality advises such residents to accept a flow limiter to ensure that residents can receive FBW without exceeding the FBW amount. A flow limiter is an electronic device that allows only 300L of water per day to be dispensed to a given household, after which water for the household is cut until the following day (Education and Liaison Officers at eThekwini Water and Sanitation, personal communication, August 25, 2011). However, the matter is more complicated than this.

In recent years, FBW in Durban was increased from 200L to 300L per household per day (approx. 6kL to 9kL per month) in an effort to provide poor residents with improved water access. However, along with the increase came an indigency policy, called the Water Debt Relief Policy – only a household with a property value of less than R190,000 (approx. $24,000 CAD) that has been in arrears for three months is eligible for FBW. A member of an eligible household can arrange with the municipality to have a flow limiter installed on the home as the arrears are eventually written off – the household pays the owing amount over an extended period of months or years. Members of ineligible households (property valued above R190,000) are able to sign a credit agreement to make payment easier but must pay for all water used, rather than using FBW (Loftus, 2005; Education and Liaison Officers at eThekwini Water and Sanitation, personal communication, August 25, 2011). The fact that only some residents can receive FBW runs contrary to the ANC's 2000 promise that *every* citizen will have FBW and those who use more will pay for only the additional amount (Bond, 2011). Whether declared eligible or not, a household's failure to negotiate with the municipality for a flow limiter and/or a repayment plan results in warnings and, if not heeded, results in the household being completely disconnected from the waterline by a municipal plumber. This may be sufficient motivation for residents to negotiate an arrangement with the municipality (Bond, 2010, 2011; Education and Liaison

Officers at eThekwini Water and Sanitation, personal communication, August 25, 2011). To

quote a University of KwaZulu-Natal community scholar who works in uMlazi:

> The price [of water] is too high for [many uMlazi residents]. Most of the time you'll find
> that the person did not pay for water the previous month and then the price will double up
> the following month. If the person is not working, he won't be able to pay. He'd rather
> buy a bag of mielie-meal than pay for water… And then the water gets cut off. That's
> why you'd find yourself going to see the authorities. In this case, it's the municipality,
> where sometimes they advise people to get the flow limiters. Sometimes they ask
> [residents] to pay. It depends on if [the residents] meet the criteria ('Zama', personal
> communication, December 13, 2011).

Thus, the price of water can force residents to choose between two essential substances – food

and water, which may cause residents to go without paying water bills for as long as water is

being provided. Even after water is cut off, though, the indigency policy is the final word on

whether the resident will receive FBW, which may or may not be sufficient to provide adequate

access. The fact that South Africa's human right to water is only available to some citizens

suggests a shortcoming in the water as a human right framework, as *human* rights, by definition,

entitle all *humans* with the same eligibility to a given right (see Cranston, 1973; Donnelly, 2003;

Freeman, 2011, cited in chapter 2).

Despite the assistance offered by the municipality, it is evident that, even for eligible

households, the FBW is often not enough to satisfy the household's needs. Even the Education

and Liaison Officers at eThekwini Water and Sanitation with whom I spoke acknowledge that

reality but concede that the system does not allow for these households to receive more than

300L daily (personal communication, August 25, 2011).[7] Thus, if 300L per day is not enough for

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[7] Though it may already be evident, I wish to be clear: The pitfalls of the municipal government's role in improving
water access (i.e. the problems with the Water Debt Relief Policy) are a result of problematic macro-level policies
and not of the Education and Liaison Officers with whom I spoke. These officers appeared by all accounts to be
thoroughly concerned with the wellbeing and water security of poor residents. They spend the vast majority of their
work lives on the ground, consulting with various members of affected communities. Their actions are simply
limited by the government structure they work within.

the household's basic needs, the household must abandon the human right to water and find

alternate means of attaining sufficient water. Three uMlazi residents describe the situation:

> People have asked for [FBW] from the municipality, so they supply 300L per day – that's limited. After that, you can figure out how to get it to your house. For me, since I am alone, I do not use more than 300L per day. But most of my neighbours and most of the people I know use more than 300L ('Pierce', personal communication, August 29, 2011).
>
> With 300L you are able to bathe, wash dishes, and cook. But the problem is you cannot use the same water for washing clothes. It will be too much. Just imagine how much water is used from flushing a toilet… There are families that consist of more than 10 members and for them [300L] is not enough ('Bogdan,' personal communication, August 24, 2011).
>
> [Some residents] negotiate for 300L. At times you find that it's not good enough… The municipality won't give you more than 300L if you need more ('Wanda,' personal communication, August 31, 2011).

Durban's FBW policies shed light onto the strict limits of the water as a human right framework

in South Africa. The Constitutional Court exists to address suspected breaches of constitutional

laws and rights such as this. However, the difficulty of seeking justice from the Court further

exposes the limits of rights discourse.

A number of cases in South Africa's short democratic history demonstrate for Durban

residents and other South Africans alike that their constitutionally granted rights, such as the

right to water, can be difficult to realize. Two noteworthy cases in Durban that served to reveal

this are 1997's *Soobramoney v. Minister of Health (KwaZulu-Natal)* and 2002's *Manquele v.*

Durban Transitional Metropolitan Council.

The *Soobramoney* case pitted a terminally ill man against the strength of the

constitutionally protected rights to life and to emergency medical treatment (RSA, 1996, ss. 11,

27.3). While this case does not relate directly to the human right to water, it is a landmark case in

showcasing the failure of rights discourse in South Africa, as the right to water and the rights the

litigant fought for are all equally guaranteed in the Constitution. Thiagraj Soobramoney was a

terminally ill Durban resident who needed immediate renal dialysis in order to stay alive. When

he ran out of personal funds to pay for his treatment, he sought help in Durban's state-funded

Addington Hospital, where he did not qualify for free treatment because the hospital had limited

dialysis capability. Seeing no alternative to stay alive, Soobramoney sought assistance from the

Constitutional Court on the grounds that by being denied life-prolonging treatment, he was being

denied his constitutional rights to life and to emergency treatment. The Court found that the

hospital was not in violation of either right; that not actively prolonging his life with treatment

does not constitute deprival of life and that his condition was not an emergency, but instead part

of an ongoing ordeal. As expected, Soobramoney died shortly thereafter (ESCR-Net, n.d.;

SAFLII, 1997). This case demonstrates that the Constitutional Court may rule against a plaintiff,

even when it is a matter of life and death. Returning again to the essence of human rights in

chapter 2, we see that every *human* is equally entitled to every *human* right via the right-bearer,

or the government (Cranston, 1973; Donnelly, 2003; Freeman, 2011). Therefore, it follows that

denial of right *x* is equally unjust as denial of right *y*. Thus, if the right-bearer (government) can

deny a particular right (i.e. life, or emergency medical treatment) that it is responsible for

providing, what stops the right-bearer from denying further rights (i.e. water) that it is equally

responsible for providing?

Five years later, in 2002, the *Manquele* case served to highlight the shortcomings of

rights discourse pertaining specifically to water access in Durban. Thulisile Christina Manquele,

unemployed mother of seven, was unable to pay off her R10,000 water bill. As a result, she and

her children were disconnected from the city's water infrastructure by the municipality. Knowing

she and her children were constitutionally guaranteed access to water, and knowing that every

household in Durban (before the indigency policy, when *everyone* was entitled to FBW) was

entitled to the then-FBW amount of 200L per day, she sought help from the Constitutional Court.

The Court ruled against her, declaring that because Manquele used more than the FBW amount daily (not unusual with eight people living at the household), she and her family had forfeited their right to water. According to the Court, the government had taken all 'reasonable' measures to ensure water access (Bond, 2011; The Rights to Water and Sanitation, n.d.). Apparent denial of constitutional water rights is thus an established problem in Durban. However, a recent, well-known case in Johannesburg represents perhaps the clearest denial of constitutional rights for many South Africans, specifically the hollowness, for many, of the human right to water.

The most notorious Constitutional Court case dealing specifically with water access is 2009's *Mazibuko and Others v. City of Johannesburg and Others*, known as the Mazibuko case or the Phiri case (after the community of Phiri in Soweto, Johannesburg). While the case involves a Johannesburg community, it sets a national precedent. Lindiwe Mazibuko and four other women from Soweto brought forward a case to the Constitutional Court with assistance from the University of Witwatersrand's Centre for Applied Legal Studies and the Coalition Against Water Privatization (a collection of South African NGOs). The plaintiffs had two main objectives. First and foremost, they argued for a doubling of the FBW amount. At that time in Johannesburg, as in Durban then, the FBW was 200L per household per day. Assuming an average of eight members per household, the plaintiffs argued that the average amount per person should increase from 25L to 50L per day (the same amount argued for by experts such as Peter Gleick, cited in the previous chapter). An FBW allotment on a 'per person' rather than 'per household' basis was the optimal goal, but given the government's reluctance to entertain this, these women felt that FBW of 400L per household per day was a reasonable – and constitutionally appropriate – demand. Along with this was the demand for a more equitable water tariff curve that charges wasteful, wealthy, high volume consumers more in order to

subsidize a greater volume of FBW for poor, low volume consumers. The second main objective

was to outlaw the pre-paid meters that were being installed in some communities in Soweto.

Mazibuko and the others argued that the meters were unconstitutional as they disconnected a

consumer instantly and without warning when a resident could not provide sufficient payment,

and as the meters were only installed in Black neighbourhoods (Bond, 2011; SAFLII, 2009).

The Constitutional Court used the 'reasonableness' clause in the Constitution to declare

the existing water policy as reasonable and constitutional. Furthermore, the Court took no issue

with the prepaid meters, which suggests that the right to water more realistically means the right

to water *for those who can afford it*. Broadly speaking, the *Mazibuko* case set an influential and

dangerous precedent for poor people across the nation. Bond (2011) summarizes the implications

of the case:

> The case is an important precedent in setting out a judicial baseline for water rights, and
> it thus suggests the limits of what a liberal capitalist democracy in a middle-income
> society will consider minimal… In other words, the case very explicitly set boundaries as
> to what constitutes the 'right to water,' even though these continue to be bitterly disputed
> by communities (p. 102).

Since the *Mazibuko* case, no substantial improvements to water access have taken place. FBW

amounts in cities such as Durban and Johannesburg have increased, as explained above, but they

came with an added indigency policy that helps some while hurting others. The basic problem of

water insecurity still remains for many residents. Given the apparent hollowness of the human

right to water for many, some Durban residents resort to other means of accessing the water they

need to survive, which I outline in the following section.

3.2. Water Commons

Engaging with the human right to water – accepting FBW and utilizing the Constitutional

Court – often proves difficult and ineffective, so many poor residents must abandon rights-based

strategies used to attain water in other ways. The main alternative strategies for improving water access are illegally connecting to the waterline and using informal residents' standpipes.[8] These strategies reflect the water commons framework in some regards, namely the improvement of community control of and access to water, which are important elements of the commons (i.e. refer to McMurty's [1999] conception of a civil commons, in chapter 2). Thus, an analysis of these strategies offers a partial glimpse into the effectiveness of the water commons framework. It is *partial* because these strategies also lack important elements of the commons, such as social regulation and a focus on preserving water. Nevertheless, these strategies allow residents to bypass the failed right to water and improve their water access. Yet, while they are successful in attaining adequate water access, they also contain inherent shortcomings such as being generally unsustainable, short-term-oriented strategies, as well as being punishable by law in the case of illegal connections. An analysis of these alternative, pseudo-water commons strategies follows.

When appealing to the human right to water fails, one of the main strategies undertaken by Durban residents to access water is illegally reconnecting to the water pipeline. This is done either by the resident in question themselves or by a plumber, whether professional or makeshift, to obtain free, unlimited water in order to meet their household's water needs (Bond, 2010; Bond & Dugard, 2008; Loftus, 2005; various uMlazi residents, personal communication, 2011). This strategy allows residents to take control of their water supply and gain immediate access, thus

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[8] According to resident interviews and focus groups, other (less commonly used) strategies to access water exist beyond those that I address in this chapter. These do not fit within either the water as a human right or water commons framework, showing us that these frameworks, even when taken together, do not exhaust responses to water insecurity. Thus, I do not include them in my analysis. One such strategy is borrowing water from neighbours. This sometimes requires begging and can be unsuccessful and degrading. Another such strategy is becoming involved in illicit drug trafficking, which could include selling or holding drugs, or otherwise helping the drug lord in exchange for payment of water bills. A third alternative strategy is bribing the water meter reader so that the household only pays for part of what they owe. This happens at the expense of neighbours, who unwittingly pay extra to compensate.

partially reflecting the water commons framework, which emphasizes strengthening the link between community members and their water source (Bakker, 2007).

Yet, this strategy is inherently risky – municipal officers scour the townships looking for illegal connections, ready to fine suspected residents if found guilty (Education and Liaison Officers at eThekwini Water and Sanitation, personal communication, August 25, 2011; eThekwini Municipality, 2011a). Because the reconnections are often done by amateurs, leaks may result which not only wastes water but may also signal the illegal connection to those who would report the residents responsible. The municipal government encourages residents to report to the municipality any illegal connections they see in their community. This is evidenced by the "Water Violation – Tip Off" webpage on the municipal website, which states:

> A water violation is an act that leads to the consumption of water in an illegal way and results in the water that is consumed not being paid for by the person or company that is consuming it… If you think that someone is illegally connected to the water network, has bypassed their water meter, is taking water from a neighbour's connection, etc, please tell us. Any information you give us will be treated in the strictest confidence (eThekwini Municipality, 2011b).

However, the risks are often not enough to deter residents from utilizing this strategy if they see fit. To illustrate, I quote first an uMlazi resident, followed by a University of KwaZulu-Natal community scholar who works in uMlazi:

> There are plenty of people in my neighbourhood who I have actually seen who couldn't afford to pay the water bills and they were cut off, and so they had to do illegal connections. Even currently… They call certain plumbers and then they get free water ('Bogdan,' personal communication, August 24, 2011).

> The best thing is to just reconnect yourself and risk the consequences of being discovered and being forced to pay a fine or being forced to use the flow limiter ('Zama,' personal communication, December 13, 2011).

Thus, the risks inherent to illegally connecting to the waterline may be perceived by residents to be preferable to submitting to the municipality's limited allotment of free water.

The other main option for bypassing rights-based strategies, according to interview participants, is using the standpipes located near informal settlements and meant for informal residents.[9] These standpipes provide users with unlimited water, free of charge. If a resident is unable to afford adequate water for the household, he/she may have the opportunity to walk to a nearby standpipe to fill buckets with water and bring it back to the house. However, many residents, especially in a large township like uMlazi, do not live near a communal standpipe so for them this strategy is not an option. Yet, even for some who live kilometres away from the nearest standpipe, and who do not wish to risk punishment for an illegal connection, the standpipe may be their best alternative. Two uMlazi residents describe how this takes place in his community:

> If people cannot afford enough water, they go to the informal settlements and use that water because the communal tap is free. That's the second option people use [after illegal connections] ('Bogdan,' personal communication, August 24, 2011).

> In the evenings, I always see [my neighbours, for whom 300L/day is not sufficient,] with buckets trying to fetch some water from an informal settlement standpipe. They go with buckets maybe two or three kilometres away to fetch water. [People who use flow limiters] get up and go to work or to school and bathe and do other things needing water. Then, maybe by 3:00pm, the water is finished [for the day]… There is a man near me who is 70 and he has to fetch his own water every day, and it's a steep walk. I feel sorry for him ('Pierce,' personal communication, August 29, 2011).

With so many residents using the standpipes intended for informal residents, long lines form as residents wait for their turn at the tap. Furthermore, the municipality only budgets a certain amount of water each month for the informal settlement standpipes, which is intended solely for use by members of informal settlements (Education and Liaison Officers at eThekwini Water and Sanitation, personal communication, August 25, 2011). Like illegally connecting, using informal settlement standpipes is an effective strategy of improving water but it is a partial

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[9] Residents who live in shacks and other forms of informal settlement often have some level of access to free communal standpipes. Those residents in formal housing are the ones who potentially face disconnections and restrictions, and thus are the focus of this research.

solution, as only some residents are within walking distance (various uMlazi residents, personal communication, 2011). Also like illegally connecting, it reflects the water commons framework by allowing community members to gain increased control over and access to their water source, ultimately putting the power in their hands. Yet, this also contradicts the water commons framework in that these strategies lack regulation and a focus on preservation – they are done on a largely uncoordinated, houseehold-by-household basis and often result in water wastage.

Thus, there are various responses to water insecurity amongst poor Durban residents, each with inherent benefits and pitfalls. Aside from negotiating with the municipality to attain a limited amount of FBW (if eligible) and taking the matter to Constitutional Court (not easy for residents who cannot even afford water), residents are left without conventional means to receive the water they are promised in the Constitution. To attain the needed water, many residents implement strategies that extend beyond the government's suggested methods and seek to make water more openly accessible through other means. Residents are forced to abandon the promise of the human right to water. Many residents employ bottom-up, rather than top-down, strategies that bypass the so-called human right to water, namely using illegal connections and informal settlement standpipes. The above describes the ways in which these alternative strategies reflect the water commons framework – allowing residents improved control of and access to water. However, these strategies also do not reflect the water commons framework in critical ways as well.

One such feature of the water commons that these strategies lack is social regulation. They are primarily individualistic, rather than communal, as action is taken by individual resident to solve the water needs of his/her household. Two uMlazi residents describe the individualistic nature of these strategies:

> It is an individual thing. It's my concern, not my neighbour's concern. If I can't afford enough water, and he can, why would he get involved? No activism around that ('Wanda,' personal communication, August 31, 2011).

> In many communities, there is a unique problem whereby people sit back and they wait for their neighbours to take action. There are people who stand up… but most people say 'If I don't do it, someone else will do it' ('Bogdan,' personal communication, August 24, 2011).

Referring once again to McMurty's (1999) definition of a civil commons, we see that a commons can take "personal, collective, or institutional form" (p. 204). However, while the individualistic, or personal, nature of illegally connecting and using informal settlement standpipes do not necessarily stand in the way of creating a water commons, lack of community cooperation hinders the development of social regulation and thus hinders the development of a water commons.

Lastly, these strategies do not focus at all on water preservation – a key commons aspect, for without preservation there may no longer be a common resource to access. There is a sad irony in these strategies – while they allow residents to access sufficient water in the short run, they can also ultimately lead to further water insecurity in the long run. One uMlazi resident astutely recognizes this:

> The government are not solving the problem. They are actually creating a problem, because higher tariffs will lead to more illegal connections, which will lead to more wastage, and that wastage will make water more scarce, and that will lead to higher tariff increases, and so on. And it's a pity because they don't see it that way… If you put yourself in [the residents'] place, you would do the same because you need water to survive ('Bogdan,' personal communication, August 24, 2011).

To elaborate, illegal reconnections often result in leakages at the point of connection, which then leads to significant water wastage. These problems lead to lower water reserves, which then leads Umgeni Water to charge the city higher prices to purchase the water. These costs are passed on to the residents in the form of increased tariffs, which means that fewer households

will be able to afford water. A greater proportion of residents must then resort to these alternative strategies, and then this continues in a dangerous and unsustainable positive feedback cycle.

Adding to this cycle, interview participants also commented on the prevalence of blatant wastage of informal standpipe water. Residents of informal and formal settlements alike sometimes leave the tap open all day or all night, and multiple users sometimes leave the tap open between turns at the tap without regard for the wasted water (Education and Liaison Officers at eThekwini Water and Sanitation and various uMlazi residents, personal communication, 2011). To quote three uMlazi residents:

> The people in informal settlements leave their water running. It affects us [in formal settlements], who pay for it ('Landon,' personal communication, July 12, 2011).

> [Residents from formal and informal settlements, who use informal settlement standpipes] just get water any time. That's fine with them. All people care about is getting water. Whether the tap runs nonstop or not, they don't care ('Lorne,' personal communication, July 14, 2011).

> Those informal taps never run out and it's free, so that water makes others suffer. Maybe someone leaves it running all night, wasting water, and then it will make the rates increase for people in formal settlements. We can blame the municipality for increasing rates, but on the other hand, the people are misusing the water. It's almost 50-50 ('Pierce,' personal communication, August 29, 2011).

Thus, as with illegal connections, the strategy of using informal standpipe water also lacks a focus on preservation. One can reasonably speculate that a system of social regulation and coordination could help to bring about improved efforts at preservation. This would more fully reflect the water commons framework, while allowing human and ecological sustainability in the long run. Thus, illegal connections and informal standpipe usage have both beneficial and harmful effects. Yet, without a more effective water policy, these strategies will continue to be reluctantly utilized and time will tell how the negative consequences will affect Durban residents.

3.3. Conclusion

One of my objectives for this paper is to bring to light the various resident responses in the struggle for sufficient water access in Durban. To do this, I use the two (arguably) contrasting frameworks of water as a human right and water commons as a backdrop to analyze the various strategies of attaining access to water. Seeking FBW from the municipality and engaging in Constitutional Court litigation are strategies used to improve water access. While these strategies are, in theory, ways to ensure residents have sufficient water access, in reality the strategies are limited and thus leave many residents without adequate access. Only some residents are allowed FBW, which is not enough water for many households' needs. Further, residents with inadequate water access have difficulty seeking retribution through the Constitutional Court, which is inaccessible for the poor and which has established precedents strictly limiting what the human right to water means in South Africa. These strategies reflect the human right to water framework because they hinge on the constitutionally granted human right to water, which has largely failed the poor residents of Durban and ultimately demonstrated the strict limits to the water as a human right framework.

Because of these shortcomings, many residents achieve greater water access by utilizing various alternative strategies, namely illegally connecting and using informal settlement standpipes. Though these strategies often allow residents improved water access, the strategies open the door for a host of additional problems. They are partial, unsustainable, and short-term solutions (and punishable by law in the case of illegal connections), and can produce water wastage, which can ultimately threaten the water source altogether. These strategies partially reflect the water commons framework in that they allow residents greater access to and control of the water source, yet they also lack social regulation and preservationist efforts, which are

important elements of the framework. Thus, we cannot use these strategies to fully evaluate the water commons framework. Although this prohibits a full evaluation of the framework, the strategies nevertheless offer insight into its strengths and weaknesses.

Successfully addressing water insecurity will require effort on the part of the government as well as the general populace in Durban. Perhaps, by introducing official policies that more fully reflect the water commons framework, new potential solutions can be explored. This would allow a more thorough evaluation on the effectiveness of the water commons framework. Or, the hybrid framework may offer solutions – only an exploration into how this could play out in Durban could determine this. In the following and final chapter, I summarize findings and speculate on future possibilities for improving water access for Durban residents.

4. Conclusion

Access to water is a hotly debated issue both in scholarly literature and on the ground between poor residents (and their advocates) and the governments responsible for water delivery. This research paper contributes to this debate by examining both arenas of contestation – the academic literature and the struggle undertaken by poor people to attain adequate water access. I chose the major South African city of Durban – and within that city, the large Black township of uMlazi – as a case study to investigate these possible connections. To make these connections, this paper is based on two interrelated research questions, beginning with "*What are the predominant frameworks used to conceptualize responses to water insecurity, in South Africa and beyond, and what are the strengths and weaknesses of each?*" This provides the paper's theoretical foundation. Building on theory, I ask "*How do these frameworks help to explain water struggle in Durban?*" Through this I seek to understand the effectiveness of the frameworks in understanding Durban residents' struggles.

4.1. Summary of findings

In chapter 2, I identified the two predominant frameworks in the academic debates, namely the water as a human right and water commons frameworks, while acknowledging that some scholars advocate for merging these into a hybrid framework that incorporates elements of each. Advocates for the human right to water assert that recognizing water as a human right places a responsibility on governments to provide for their citizens and disallow private sector involvement (Finger & Allouche, 2002; Goldman, 2005; Johnston et al., 2006; Morgan, 2004a; 2004b; 2005). However, critics such as Bakker (2007; 2010; 2012) argue that this framework is individualistic, anthropocentric, overly state-dependent, and compatible with commodification.

Within South Africa, it is argued that rights discourse operates within the bounds of the existing socio-political-economic system, leaving the status quo unchallenged, though this may lead to structural change eventually (Liebenberg, 2005). Human rights can also translate to abstraction and bureaucracy, thus distancing poor people from their fight for justice. However, the Constitutional Court could be a strong agent for change if key procedural revisions are made that benefit would-be litigants, such as direct-access advancements and more consistency in Court judgments (Bond & Dugard, 2008; Pieterse, 2007; Roithmayr, 2000).

Moving beyond the human right to water, Bakker (2007; 2010; 2012) argues that water commons is the most appropriate opposite to water as a commodity, and that communities are the best positioned to manage their own water. Trawick (2002) asserts that communities around the world, past and present, have created successful water commons that all share common principles – autonomy, contiguity, uniformity, proportionality, regularity, and transparency – and that these attributes form the backbone of a successful water commons. However, the water commons risks romanticizing the community scale, masking the disorganized, heterogonous, and unequal conditions that may actually exist. Also, rule-setting and enforcement can be difficult (Bakker, 2007; 2012; Bond, 2010; 2011; Meinzen-Dick & Nkonya, 2007; van Koppen et al., 2007). Advocating for the water commons framework in South Africa, Bond (2010; 2011; 2012) suggests merging community, environmental, and labour activism in order to establish water commons in South African communities. For residents on the ground, he recognizes the merit in illegally connecting to water pipes to access the necessary water. Roithmayr (2010) echoes the call for the water commons, suggesting that it would allow community members to be the stakeholders in their own affairs and openly discuss what decisions to make.

A third body of literature argues that each framework is insufficient on its own and that the shortcomings of each can be compensated for by elements of the other via a hybrid framework (Clark, 2012; Linton, 2012; Meinzen-Dick & Nkonya, 2007; Mitchell, 2012; Staddon, Appleby & Grant, 2012). This hybrid framework, however, is not reflected in Durban residents' responses to water insecurity, as explained in chapter 3.

In chapter 3, I identify the strategies used by Durban residents when faced with water insecurity and explore whether and how they reflect the frameworks established in chapter 2. The predominant strategies used are seeking municipal assistance (for free basic water [FBW]), Constitutional Court litigation, illegally connecting to pipelines, and using informal settlement standpipes. The former two strategies reflect the water as a human right framework as they hinge on the citizens' constitutionally granted right to water. Providing FBW to residents is the municipality's attempt at ensuring that nobody goes without enough water for basic needs. However, in reality, only some households qualify and the FBW is insufficient for many who do qualify (Bond, 2010, 2011; Education and Liaison Officers at eThekwini Water and Sanitation, personal communication, August 25, 2011). The Constitutional Court is, in theory, a measure of ensuring that citizens are not denied rights granted to them in the Constitution. However, dangerous precedents have established limits to what human rights actually mean for litigants, leaving litigants seemingly without retribution (Bond, 2011; ESCR-Net, n.d.; SAFLII, 1997; 2009; The Rights to Water and Sanitation, n.d.). Further, poor residents face difficulties in bringing a case before the Court in the first place as direct access measures are not being implemented and thus those South Africans most in need are facing an uphill battle from the start (Bond, 2011). The limitations of these strategies suggest the failure of the water as a human right framework in Durban.

Most commonly, these alternative strategies take the form of illegal connections and using informal settlement standpipes. These strategies reflect the water commons framework in some regards, namely the improvement of community control of and access to water. However, illegal connections are punishable by law and using informal settlement standpipes is not an option for those who do not live near. Yet, these strategies also lack key elements of this framework, namely social regulation and a focus on preservation. These shortcomings result in water wastage, which eventually contributes to rising tariffs and reduced water reserves, thus hurting more residents and hindering long-term access one (Education and Liaison Officers at eThekwini Water & Sanitation and various uMlazi residents, personal communication; Bond, 2010; 2011; Loftus, 2005). These problems are not reflective of problems with the water commons framework more broadly, but rather with the particular strategies used on the ground. Because the strategies only partially reflect the water commons framework, we cannot use them to fully evaluate it. Nonetheless, they give us insight into the framework's strengths and limitations.

4.2. Reflections and implications

The findings from this study have important implications for water researchers and suggest avenues for future research – questions that could not be addressed here given the scope of the project. For instance, there is an urgent need to explicitly link the questions addressed in this paper with climate change, especially given that Durban is said to be facing an imminent water crisis due to climate change (SAPA, 2011; Savides, 2011). Climate change may contribute to putting increasing numbers of residents in positions of water insecurity, and therefore there may be important crossover between fighting water insecurity and fighting climate change. In

addition, future research can examine how certain residents' responses (namely illegal connections and using informal settlement standpipes) may worsen already-existing effects that climate change has on water supply by wasting water.

To gain more insight on the various resident responses themselves, future research might take a more in-depth look at each strategy, both government-endorsed and otherwise. By speaking with residents, government employees, and even others such as scientists, we may be able to understand more fully the diverse consequences of the various strategies from the perspectives of all involved. To follow up my research, a case study of Durban several years later could identify any future progress, though studies of other cities (national and international) would allow for urban comparisons to garner further insight. In the same vein, future research on rural communities in eThekwini, elsewhere in South Africa, and internationally, would allow for better understanding of how rural and urban residents' responses differ. How does the rural experience differ from the urban? And how does this fit in with climate change, as compared to the urban? What does this tell us about water security? About the benefits and pitfalls of each strategy? These and other questions call for a multi-disciplinary approach that considers how all of these questions are woven together inextricably.

Finally, future research might also address the ways in which the eThekwini government could go about improving on water policy, such as experimenting with commons approaches. My research suggests pursuing a water commons as a potential way forward, yet, thinking seriously about how this could happen is another task altogether. How could the government collaborate with community members to establish fair and effective commoning policies? How might a hybrid strategy take shape in eThekwini, retaining certain rights-based elements but adopting new commons elements as well? Perhaps Bond's (2010; cited in chapter 1) suggestion

that 'hedonistic' water users be charged a premium to help subsidize poor residents would be appropriate in thinking about ways commons-based strategies could come about in eThekwini. Furthermore, given Trawick's (2002) claim that all water commons roughly follow the same principles, future research is needed to discover how commons or hybrid approaches could take root in various other cities and regions.

This project has revealed that improving water access is a complex endeavour. My research, at the very least, takes a step toward realizing that goal. As evidenced by this study, residents are willing to do whatever it takes to ensure their household receives the water it needs. Something that stands out to me about this is the apparent clash between poor Durban residents and the government. Whether using rights-based strategies or alternative, pseudo-commons strategies, residents are in conflict with the government. The government, meanwhile, views poor residents as the source of the problem, rather than a as population in need of better services. It is difficult to imagine that this confrontational relationship will help to eradicate water insecurity. Perhaps this represents one broad change needed in order to move forward in the interests of both residents and the government. Dialogue must be improved, with the government showing community members that they themselves must be part of the solution, and with community members showing the government that they are serious about coming together to confront the challenge.

With this research paper, I establish the primary frameworks used for understanding struggles to improve water access and how these frameworks are reflected in residents' responses in Durban. My reasons for doing this extend beyond contribution to the literature. Along with gaining a better understanding of the frameworks and how they play out on the ground, my hope is that this and other, similar research can provide governments with evidence

that significant changes *are* needed. Based on this research, we cannot say that establishing a water commons is necessarily the solution. But, the research does suggest that commons options should be explored, at least in order to get a better understanding of how they will serve poor Durban and South African residents. Perhaps looking to the hybrid framework is the solution – it has not yet been explored in Durban and thus we cannot yet determine how effective it could be. Regardless of what the objectively 'best' way to proceed is, if it exists, the evidence suggests that it is not to simply uphold the status quo.

5. Works cited

Abraham, A. (2006, December 13). *Joburg hosts national Vuna awards*. Retrieved February 26, 2011, from http://www.joburgnews.co.za/2006/dec/dec13_vuna.stm

Bailey, R., & Buckley, C. (2004). 'Modelling Domestic Water Tariffs,' Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference, Cape Town, 2-6 May, 2004.

Bakker, K. (2007). The "commons" versus the "commodity": Alter-globalization, anti-privatization and the human right to water in the global south. *Antipode, 39*(3), 430-455.

Bakker, K. (2010). *Privatizing water: Governance failure and the world's urban water crisis*. Ithaca, NY: Cornell University Press.

Bakker, K. (2012). Commons versus commodities: Defining the human right to water. In F. Sultana, & A. Loftus (Eds.), *The right to water: Politics, governance and social struggles* (pp. 19-44). London & New York: Earthscan.

Barbour, R. (2007). *Doing focus groups*. London & Thousand Oaks, CA: Sage Publications.

Barnes, P. (2006). *Capitalism 3.0: A Guide to Reclaiming the Commons*. San Francisco & Berkely: Berrett-Koehler.

Big Picture Ministries. (2012). *Big Picture Ministries in South Africa*. Retrieved October 1, 2001, from http://bigpictureofthebible.com/south-africa-mission

Bond, P. (2000). *Elite transition: From apartheid to neoliberalism in South Africa*. London: Pluto Press.

Bond, P. (2010). *Fighting for the right to the city: Discursive and political lessons from the right to water*. Presented to the Right to Water Conference 2010, Syracuse University, New York, March 29.

Bond, P. (2011). Durban's water wars, sewage spills, fish kills and blue flag beaches. In P. Bond (Ed.), *Durban's climate gamble: Trading carbon, betting the earth* (pp. 75-116). Pretoria: Unisa Press.

Bond, P. (2012). The right to the city and the eco-social commoning of water: Discursive and political lessons from South Africa. In F. Sultana, & A. Loftus (Eds.), *The right to water: Politics, governance and social struggles* (pp. 190-205). London & New York: Earthscan.

Bond, P., & Dugard, J. (2008). Water, human rights and social conflict: South African

experiences. *Law, Social Justice & Global Development, 2008*(1), 1-21.

Cahill, A. (2005). 'The human right to water - a right of unique status': The legal status and normative content of the right to water. *The International Journal of Human Rights, 9*(3), 389-410.

Calaguas, B.U. (1999). 'The Right to Water, Sanitation and Hygiene and the Human Rights-Based Approach to Development.' A WaterAid Briefing Paper.

Clark, C. (2012). The centrality of community participation to the realization of the right to water: The illustrative case of South Africa. In F. Sultana, & A. Loftus (Eds.), *The right to water: Politics, governance and social struggles* (pp. 174-189). London & New York: Earthscan.

Cranston, M. (1973). *What are human rights?*. New York: Taplinger Publishing C., Inc.

Creswell, J.W., W.E. Hanson, V.L. Plano Clark and A. Morales (2007), Qualitative research designs: Selection and implementation, *The Counselling Psychologist, 35*(2), 236-264.

Dellapenna, J.W. (2008). A human right to water: An ethical position or a realizable goal? In L. Westra, K. Bosselmann, & R. Westra (Eds.), *Reconciling Human Existence with Ecological Integrity* (pp. 183-193). London & Sterling, VA: Earthscan.

Donnelly, J. (2003). *Universal human rights in theory & practice* (2nd ed.). Ithaca, NY: Cornell University Press.

Dugard, J. (2006). Court of first instance? Towards a pro-poor jurisdiction for the South African Constitutional Court. *South African Journal on Human Rights, 2006*(22).

Dugard, J., & Roux, T. (2006). The record of the South African Constitutional Court in providing and institutional voice for the poor: 1995-2004. In R. Gargarella, P. Domingo, & T. Roux (Eds.), *Courts and Social Transformation in New Democracies: An Institutional Voice for the Poor?* (pp. 107-125). London: Ashgate Press.

ESCR-Net (n.d.). *Soobramoney v. Minister of Health (KwaZulu-Natal)*. Retrieved June 1, 2012, from http://www.escr-net.org/caselaw/caselaw_show.htm?doc_id=673074

eThekwini Municipality. (2006, January 4). *Profile of Mayor Councillor Obed Thembinkose Mlaba*. Retrieved February 26, 2011, from http://www.durban.gov.za/durban/government/mayor/mayor/cv/mcop

eThekwini Municipality. (2011a). *EThekwini Municipality takes a tough stance on residence using services illegally*. Retrieved October 1, 2011, from http://www.durban.gov.za/media_publications/Press_Releases/Pages/wateramnesty2012.aspx

eThekwini Municipality. (2011b). *Water violation – tip off*. Retrieved December 1, 2011, from http://www.durban.gov.za/City_Services/water_sanitation/Water_Violation/Pages/default.aspx

eThekwini Municipality. (n.d.). Water and Sanitation homepage. In *City Services*. Retrieved from http://www.durban.gov.za/durban/services/water_and_sanitation

Finger, M., & Allouche, J. (2002). *Water Privatisation: Transnational Corporations and the Re-regulation of the Water Industry*. London: Spon Press.

Freeman, M. (2011). *Human rights: An interdisciplinary approach* (2nd ed.). Cambridge, UK & Malden, MA: Polity Press.

Glazewski, J. (2002). The rule of law: Opportunities for environmental justice in the new democratic legal order. In D.A. McDonald (Ed.), *Environmental justice in South Africa* (pp. 171-198). Athens, OH: Ohio University Press.

Gleick, P. (1996). Basic water requirements for human activities: Meeting basic needs. *Water International, 1996*(21), 83-92.

Gleick, P. (1999). *The human right to water*. Oakland, CA: Pacific Institute for Studies in Development, Environment, and Security.

Gleick, P. (2007). *The human right to water*. Oakland, CA: Pacific Institute for Studies in Development, Environment, and Security.

Goldman, M. (2005). *Imperial Nature: The World Bank and the Making of Green Neoliberalism*. New Haven, CT: Yale University Press.

Haddad, B. (2000). *Rivers of Gold: Designing Markets to Allocate Water in California*. Washington: Island Press.

Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies, 14*(3), 575-599.

Hardberger, A. (2005). Life, liberty, and the pursuit of water: Evaluating water as a human right and the duties and obligations it creates. *Northwestern Journal of International Human Rights, 4*(2), 331-362.

Hardin, G. (1968). The tragedy of the commons. *Science, 162*, 1243-1248.

Hardt, M. (2009). *Politics of the common*. Contribution to the Reimagining Society Project hosted by ZCommunications, Boston, July 6.

Jabareen, Y. (2009). Building a conceptual framework: Philosophy, definitions, and procedure. *International Journal of Qualitative Methods, 8*(4), 49-62.

Johnston, J. (2006). Who cares about the commons? In J. Johnston, M. Gismondi, & J. Goodman (Eds.), *Nature's Revenge: Reclaiming Sustainability in an Age of Corporate Globalization* (pp. 39-71). Toronto: Broadview Press.

Johnston, J., Gismondi, M., & Goodman, J. (2006). *Nature's Revenge: Reclaiming Sustainability in an Age of Corporate Globalization*. Toronto: Broadview Press.

Johnstone, N., & Wood, L. (2001). *Private Firms and Public Water: Realising Social and Environmental Objectives in Developing Countries*. London: International Institute for Environment and Development.

Liebenberg, S. (2005). *Needs, rights and transformation: Adjudicating social rights*. New York: NYU School of Law

Linton, J. (2012). The human right to what? Water, rights, humans, and the relation of things. In F. Sultana, & A. Loftus (Eds.), *The right to water: Politics, governance and social struggles* (pp. 45-60). London & New York: Earthscan.

Loftus, A. (2005). 'A Political Ecology of Water Struggles in Durban, South Africa,' Doctoral thesis in the School of Geography and the Environment, University of Oxford.

Longhurst, R. (2003). Semi-structured interviews and focus groups. In N.J. Clifford & G. Valentine (Eds.), *Key methods in geography* (pp. 117-132). London & Thousand Oaks, CA: Sage Publications.

McCaffrey, S.C. (1992). A human right to water: Domestic and international implications. *International Environmental Law Review, (5)*1, 1-24.

McCaffrey, S.C. (2005). The human right to water. In E.B. Weiss, L.B. de Chazournes, & N. Bernasconi-Osterwalder (Eds.), *Fresh Water and International Economic Law* (pp. 93-115). Oxford: Oxford University Press.

McMurty, J. (1999). *The Cancer Stage of Capitalism*. London & Sterling, VA: Pluto Press.

Meinzen-Dick, R., & Nkonya, L. (2007). Understanding legal pluralism in water and land rights: Lessons from Africa and Asia. In B. van Koppen, M. Giordano, & J. Butterworth (Eds.), *Community-based water law and water resource management reform in developing countries* (pp. 12-27). Oxfordshire, UK & Cambridge, MA: CAB International.

Mitchell, K.R. (2012). The political economy of the right to water: Reinvigorating the question of property. In F. Sultana, & A. Loftus (Eds.), *The right to water: Politics, governance and social struggles* (pp. 78-93). London & New York: Earthscan.

Mlaba, O. & Sutcliffe, M. (2006, December 27). *Why eThekwini Municipality won the Vuna Award for best run metropolitan*. Retrieved February 26, 2011, from http://www.durban.gov.za/durban/government/munadmin/media/press/best_run/view

Montaigne, F. (2002). Water pressure. *National Geographic, 202*(3), 2-34.

Monbiot, G. (1994). The tragedy of enclosure. *Scientific American*, January.

Morgan, B. (2004a). The regulatory face of the human right to water. *Journal of Water Law, 15*(5), 179-186.

Morgan, B. (2004b). Water: Frontier markets and cosmopolitan activism. *Soundings: A Journal of Politics and Culture, 27*, 10-24.

Morgan, B. (2005). Social protest against privatization of water: Forging cosmopolitan citizenship? In M.C. Condonier Seggier, & J. Weeramantry (Eds.), *Sustainable Justice: Reconciling International Economic, Environmental and Social Law*. The Hague: Martinus Nijhoff.

Naidoo, O., Khumalo, D. & Bond, P. (2007). *eThekwini: Drought hits the poors*. Retrieved February 26, 2011, from http://ccs.ukzn.ac.za/default.asp?3,28,11,3065

Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge, UK: Cambridge University Press.

Pieterse, M. (2007). Eating socioeconomic rights: The usefulness of rights talk in alleviating social hardship revisited. *Human Rights Quarterly, 29*(3), 796-822.

Republic of South Africa (RSA). (1996). *The Constitution of the Republic of South Africa*. Cape Town.

Ritchie, J. (2003). The applications of qualitative methods to social research. In J. Ritchie, & J. Lewis (Eds.), *Qualitative Research Practice: A guide for social science students and researchers* (pp. 24-46). London: Sage.

Rogers, P., de Silva, R., & Bhatia, R. (2002). Water is an economic good: How to use prices to promote equity, efficiency, and sustainability. *Water Policy, 4*(2002), 1-17.

Roithmayr, D. (2000). Left (over) rights. *Law Text Culture, 5*(2), 1-22.

Roithmayr, D. (2010). Lessons from *Mazibuko*: Persistent inequality and the commons. *Constitutional Court Review, 2010*(3), 317-346.

Rooms for Africa. (2011). *Durban Accommodation*. Retrieved October 1, 2011, from http://www.roomsforafrica.com/dest/south-africa/kwazulu-natal/durban.jsp?tab=3

Savides, M. (2011, March 6). Water shortages loom for Durban. *IOL News*. Retrieved May 5, 2011, from http://www.iol.co.za/news/south-africa/kwazulu-natal/water-shortages-loom-for-durban-1.1036749

Shiva, V. (2002). *Water Wars: Privatization, Pollution and Profit*. London: Pluto Press.

South African Legal Information Institute (SAFLII). (1997). *Soobramoney v. Minister of Health (KwaZulu-Natal)*. Retrieved June 1, 2012, from http://www.saflii.org/za/cases/ZACC/1997/17.html

South African Legal Information Institute (SAFLII). (2009). *Mazibuko and Others v. City of Johannesburg and Others*. Retrieved June 1, 2012, from http://www.saflii.org/za/cases/ZACC/2009/28.html

South African Press Association (SAPA). (2011, February 19). Water crisis looms. *IOL News*. Retrieved March 25, 2011, from http://www.iol.co.za/news

Staddon, C., Appleby, T., & Grant, E. (2012). A right to water? Geographico-legal perspectives. In F. Sultana, & A. Loftus (Eds.), *The right to water: Politics, governance and social struggles* (pp. 61-77). London & New York: Earthscan.

Stoetzler, M., & Yuval-Davis, N. (2002). Standpoint theory, situated knowledge and the situated imagination. *Feminist Theory, 3*(3), 315-333.

Sultana, F., & Loftus, A. (Eds.). (2012). *The Right to Water: Politics, Governance and Social Struggles*. London & New York: Earthscan.

The Rights to Water and Sanitation. (n.d.). *Enforcing the right to water: South Africa*. Retrieved June 1, 2012, from http://www.righttowater.info/ways-to-influence/legal-approaches/enforcing-the-right-to-water-south-africa/

The Together Foundation & UN-Habitat (2008). *Durban Metro Water Services: Sewage Disposal Education Programme, South Africa*. Retrieved February 26, 2011, from http://www.bestpractices.org/bpbriefs/watesan.html

Tissington, K., Dettmann, M., Langford, M., Dugard, J., & Conteh, S. (2008). *Water services fault lines: An assessment of South Africa's water and sanitation provision across 15 municipalities*. Johannesburg, Geneva, Oslo: Centre for Applied Legal Studies, Centre on Housing Rights and Evictions, Norwegian Centre for Human Rights.

Trawick, P. (2002). The moral economy of water: General principles for successfully managing the commons. *Water Issues, 11*(3), 5-8.

United Nations (UN). (2010). 'The Right to Water: Fact Sheet no. 35.'

United Nations Development Programme (UNDP). (2006). *Human Development Report*, New York.

UN News Centre (2010, July 28). *General Assembly declares access to clean water and sanitation is a human right*. Retrieved April 15, 2012, from http://www.un.org/apps/news/story.asp?NewsID=35456&Cr=SANITATION

UN-Water (2010). Water Scarcity. In *International decade for action: Water for life, 2005-2015*. Retrieved March 30, 2011, from http://www.un.org/waterforlifedecade/scarcity.html

van Koppen, B., Giordano, M., Butterworth, J., & Mapedza, E. (2007). Community-based water law and water resource management reform in developing countries: Rationale, contents and key messages. In B. van Koppen, M. Giordano, & J. Butterworth (Eds.), *Community-based water law and water resource management reform in developing countries* (pp. 1-11). Oxfordshire, UK & Cambridge, MA: CAB International.

Winkler, I.T. (2012). *The Human Right to Water: Significance, Legal Status and Implications for Water Allocation*. Oxford & Portland, OR: Hart Publishing.

Winpenny, J. (1994). Managing water as an economic resource. *Public Administration and Development, 14*(4), 413-414.

Winpenny, J. (2003). 'Report of the World Panel on Financing Water Infrastructure: Financing Water for all.'