

South Africa And The Human Right To Water: Equity, Ecology, And The Public Trust Doctrine

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ABSTRACT

After liberation from apartheid in 1996, South Africa's new, progressive Constitution proclaimed: "Everyone has the right to have access to sufficient food and water." In this paper, I analyze South Africa's revolutionary legal vision for marrying social equity to ecology in fulfilling the right to water. South Africa's successes and obstacles as a developing nation with few natural water sources and great water needs demonstrates the translation of aspirational ideas into functional law. This is significant not just to South Africa's own citizens, but extends to the entire world. South Africa's approach contains essential lessons for how to use the law to support the billion plus people around the world whose right to water remains unfulfilled, and to the million plus people who die each year from dehydration or diseases related to unclean or inadequate water supplies. South Africa's past and future approaches to implementing the right to water will continue to shape the legal meanings of "progressive realization" within "available resources" for all economic, social and cultural human rights worldwide.

I first examine South Africa's initial, visionary laws and policies which sought to implement the human right to water. South Africa's legal blueprint resurrected its Public Trust Doctrine, requiring the government to protect the ecological "Reserve" that nourishes the right to water. After promising

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beginnings, South Africa applied legally questionable policies vis-à-vis the right to water. For example, it considered the equivalent of two toilet flushes per person per day as an adequate supply of water. Furthermore, it allowed government water service providers to install prepaid water meters for the poorest of the poor, which shut off water supply without notice when water use exceeded the predetermined “adequate” supply.

These policies were upheld by the globally influential South African Constitutional Court in *Mazibuko v. City of Johannesburg*, which this Paper argues undermined the human right to water. The Court failed to respect constitutional prescriptions to advance equity. It also failed to consider public trust responsibilities to steward the legally mandated ecological Reserve, the ultimate source of water. The Court also misconstrued the Constitution’s command to “take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of” the right to water. Judges and bureaucrats alike—in South Africa and in too many other locales—fail to see that “available resources” must include ecological resources. Failure to root the human right to water in its ecological milieu is a failure to make progress in fulfilling the human right to water.

After leading the world in getting the right to water right and then wrong, South Africa has again formulated groundbreaking legal plans to realize the right to water. The nation seeks to reallocate water towards those in greatest need, and has established ambitious plans to steward the ecological Reserve that underlies the human right to water. If South Africa succeeds in implementing its new legal strategies based on the “indivisibility of water,” it will offer a blueprint for how to make the human right to water more than an empty promise through a reconfigured, visionary understanding of the Public Trust Doctrine that marries equity to ecology.

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INTRODUCTION

Although we live on a water planet,¹ only one-one hundredth of one percent of all water on Earth is available in fresh, drinkable form.² According to the World Health Organization, over one billion people lack access to a basic supply of clean water, which is defined as fifty to one hundred liters per day within one kilometer of a residence.³ Nearly half of all people in developing countries suffer from poor health related to inadequate or unclean water, and 3,600 people die each day (3.7 percent of total deaths and 15 percent of childhood deaths) from diseases stemming from unclean water and improper sanitation, more than from measles, malaria, and AIDS combined.⁴ Water

1. NASA Global Climate Change, *Earth: The Water Planet*, YOUTUBE (Dec. 22, 2010), <https://www.youtube.com/watch?v=moSBExILu2M>.

2. Andrew L. Magaziner, *The Trickle Down Effect: The Phiri Water Rights Application and Evaluating, Understanding, and Enforcing the South African Constitutional Right to Water*, 33 N.C. J. OF INT'L L. & COM. REG. 509, 550 (2008).

3. UNITED NATIONS DEVELOPMENT PROGRAMME, HUMAN DEVELOPMENT REPORT: BEYOND SCARCITY: POWER, POVERTY AND THE GLOBAL WATER CRISIS 5 (2006); *The Human Right to Water and Sanitation*, UNITED NATIONS (May 29, 2014), http://www.un.org/waterforlifedecade/human_right_to_water.shtml. Estimates differ on who lacks water, in part due to different parameters for considering what is "adequate." According to a recent UN report, 663 million people lack improved, safe drinking water. Sam Jones, *What Is the Millennium Development Goal on Sustainability All About?*, GUARDIAN (July 23, 2015), <http://www.theguardian.com/global-development/2015/jul/23/millennium-development-goal-seven-sustainability-mdg7-sanitation-deforestation-drinking-water-explainer>.

4. CATARINA DE ALBUQUERQUE, ON THE RIGHT TRACK: GOOD PRACTICES IN REALISING THE RIGHT TO WATER AND SANITATION 20 (2012) [hereinafter DE ALBUQUERQUE, RIGHT TRACK]; HUMAN DEVELOPMENT REPORT, *supra* note 4, at 6; UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP) & UN-HABITAT, SICK WATER? THE CENTRAL ROLE OF WASTEWATER MANAGEMENT IN SUSTAINABLE DEVELOPMENT 40 (Emily Corcoran, et al. eds., 2010),

scarcity also means food scarcity,⁵ which further impoverishes and kills millions.

The law can and should ameliorate these catastrophic conditions. One legal gambit: in 2010, the United Nations General Assembly voted⁶ that the right to clean drinking water and sanitation is a human right that is “essential for the full enjoyment of life and all human rights.”⁷

South Africa, however, preceded the United Nations (and much of the rest of the world) by fourteen years. In 1996, liberated from the iniquities (but not the inequities) of apartheid, the nation’s constitution proclaimed: “Everyone has the right to have access to sufficient food and water.”⁸ Not just empty words on paper, South Africans backed the promise of a right to water through statutes that specified the right, the policies to implement the right, activism to realize and expand the right, and court decisions to delineate the contours of the right.

These legal developments placed South Africa far ahead of other nations in the effort to transform the human right to water from an idealistic aspiration into binding, meaningful law. What happened with the right to water in South Africa matters a great deal. It mattered to the twenty-two million South Africans (fifty-nine percent of the population) who didn’t have a basic water supply at the end of apartheid and who now do (94.8 percent, self-reported in 2013),⁹ and is still important to the twelve to fourteen million people who lack basic water access today.¹⁰ It matters to future generations of South Africans who will depend on a non-depleted, legally mandated “Reserve” of water to supply their basic needs,

http://www.unep.org/pdf/SickWater_screen.pdf; Rhett B. Larson, *The New Right in Water*, 70 WASH. & LEE L. REV. 2181, 2182 (2013).

5. HUMAN DEVELOPMENT REPORT, *supra* note 4, at 80.

6. See Press Release, General Assembly, General Assembly Adopts Resolution Recognizing Access to Clean Water, Sanitation as Human Right, by Recorded Vote of 122 in Favour, None against, 41 Abstentions, U.N. Press Release GA/10967 (July 28, 2010) [hereinafter General Assembly Press Release].

7. G.A. Res. 64/292, The Human Right to Water and Sanitation, at 2 (Aug. 3, 2010), <http://www.un.org/es/comun/docs/?symbol=A/RES/64/292&lang=E>.

8. S. AFR. CONST., 1996, § 27(1)(b).

9. DEP’T OF WATER AFFAIRS, STRATEGIC PLAN FOR THE FISCAL YEARS 2013/14 TO 2017/18 (2013) (S. Afr.), <https://www.dwa.gov.za/documents/Other/Strategic%20Plan/2013/Strategic%20plan%20draft%20-%2011%20Mar%202013.pdf>. These numbers come from the Minister of Water & Environmental Affairs. The Constitutional Court in *Mazibuko v. Johannesburg* will quote different figures. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at para. 2 (S. Afr.), <http://www.saflii.org/za/cases/ZACC/2009/28.pdf>.

10. DEP’T OF WATER AFFAIRS & FORESTRY, WHITE PAPER ON THE NATIONAL WATER POLICY FOR SOUTH AFRICA § 2.2.3 (1997), <http://www.dwaf.gov.za/Documents/Policies/nwpwp.pdf>. For a comprehensive overview of these issues, see, for example, DEP’T OF WATER AFFAIRS, BLUE DROP REPORT 2010: SOUTH AFRICAN DRINKING WATER QUALITY MANAGEMENT PERFORMANCE (2010) [hereinafter Dep’t of Water Affairs, Blue Drop]; DEP’T OF WATER AFFAIRS, GREEN DROP REPORT 2009: SOUTH AFRICAN WASTE WATER QUALITY MANAGEMENT PERFORMANCE (2009) [hereinafter Dep’t of Water Affairs, Green Drop].

and it matters to the flora and fauna of functioning ecosystems that similarly depend on clean fresh water.

As the mortality figures quoted above connote, what happens with the right to water in South Africa also matters a great deal outside the nation's borders. It is one thing to declare that all people should have a basic supply of clean water; it is another to make that happen in a country with few rivers, no snowpack, seasonal rain, frequent droughts, and great needs, where most poor citizens live far from sources of water and where international lenders pressure the nation to divest from providing public services.¹¹ South Africa is one of the world's driest nations,¹² a fledgling democracy recovering from the ravages of apartheid.¹³ It is home to millions of impoverished citizens and dramatic income inequality, particularly between Blacks and Whites.¹⁴ Because South Africa had a head start on not only proclaiming that clean water is a basic right but actually delivering on that right, and because it is a democracy with an active, respected judiciary, what happens in South Africa creates international legal and policy precedent regarding the human right to water.¹⁵

This paper traces the evolution of the right to water in South Africa and explains why it matters both in South Africa and elsewhere. This paper first discusses how South Africa began to realize the right to water despite significant obstacles, ahead of the rest of the world in chronology, in vision, and in law. After the Constitution declared a right to water, South Africa quickly acted to implement that right; this Paper traces the statutes, policies, and court decisions that were forward thinking in attempting to realize this right for South Africa's citizens.

This Paper explains how policymakers resurrected the nation's moribund Public Trust Doctrine, which, when combined with an aggressive commitment to environmental human rights, leads to progressive, holistic law and policy on the contours and implementation of the right to water. This vision marries a commitment to equity in order to counteract the nation's recent heinous

11. See *infra* Background on the Right to Water at page 15–16, for discussion and references.

12. SIP 19: ECOLOGICAL INFRASTRUCTURE FOR WATER SECURITY 15 (2014) (S. Afr.) [hereinafter SIP 19]; Louis J. Kotzé & Rebecca Bates, *Similar But Different: Comparative Perspectives on Access to Water in Australia and South Africa*, 15 U. DENV. WATER L. REV. 221, 224 (2012).

13. For the relationship between apartheid, the new Constitution, and water, see, for example, Rose Francis, *Water Justice in South Africa: Natural Resources Policy at the Intersection of Human Rights, Economics, and Political Power*, 18 GEO. INT'L ENVTL. L. REV. 149, 153–58 (2005); Magaziner, *supra* note 3, at 512–16.

14. Income inequality has actually exacerbated since apartheid, and is among the worst in the world. ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD), OECD ECONOMIC SURVEYS: SOUTH AFRICA 18 (2013); Murray Liebbrandt et al., *Describing and Decomposing Post-Apartheid Income Inequality in South Africa*, 29 DEV. S. AFR. 19 (2012).

15. George S. McGraw, *Defining and Defending the Right to Water and its Minimum Core: Legal Construction and the Rule of National Jurisprudence*, 8 LOY. U. CHI. INT'L L. REV. 127, 191 (2011); see Paul O'Connell, *The Death of Socio-Economic Rights*, 74 MOD. L. REV. 532, 538 (2011) (noting increasing convergence of approaches to issues of socio-economic rights across countries).

apartheid regime with a profound understanding of ecology. It recognizes that water doesn't just come from the tap: it comes from natural sources that must be stewarded by the sovereign for the benefit of all.

While the Constitution's declaration of the right to water comes with the proviso that the government must "take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of"¹⁶ the right, this Paper explores what those "available resources" actually are or what they could be. This Paper analyzes the government's laws and policy documents; from promising beginnings in the 1997 White Paper on a National Water Policy¹⁷ and 1998 National Water Act,¹⁸ to the visionary, legally binding 2013 National Water Resources Strategy¹⁹ and the 2014 Strategic Implementation Plan 19, "Ecological Infrastructure for Water Security."²⁰ These documents show that maximizing "available resources" requires the government to fulfill its mandated public trust duties to steward the statutorily required Reserve, which protects the ecological infrastructure that is the source of all water.

Nonetheless, the legal road to marry equity to ecology in South Africa has been bumpy. South Africa shares with all nations competing demands for limited economic and ecological resources. It also embodies the tension between the ideology of neoliberal economic reforms, the demands of human rights, and the ecological reality of a limited source of clean fresh water. Questionable government policies and court decisions took a crimped view of "progressive realization" of the right to water as an economic, social, and cultural right. Actors implementing the right to water further failed to understand what the Public Trust Doctrine demands of governments striving to fulfill the human right to water without squandering the resource for current and future generations.

This Paper analyzes the incorrect holding in the internationally influential (and in some—but not all²¹—quarters, maligned²²) *Mazibuko v. City of*

16. S. AFR. CONST., 1996 § 27(2).

17. DEP'T OF WATER AFFAIRS & FORESTRY, *supra* note 11.

18. National Water Act 36 of 1998 (S. Afr.), https://www.dwa.gov.za/Documents/Legislature/nw_act/NWA.pdf.

19. DEP'T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY: WATER FOR AN EQUITABLE AND SUSTAINABLE FUTURE (2d ed. 2013) (S. Afr.), dwaf.gov.za/nwrs/LinkClick.aspx?fileticket=u_qFQycClbl%3d&tabid=91&mid=496 [hereinafter Dep't of Water Affairs, Resource Strategy].

20. SIP 19, *supra* note 13.

21. See, e.g., Catarina de Albuquerque (Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation), *Addendum: Compilation of Good Practices*, ¶ 96, U.N. Doc. A/HRC/18/33/Add.1 (June 29, 2011) [hereinafter de Albuquerque, *Good Practices*]; Tracy Humby & Maryse Grandbois, *The Human Right to Water in South Africa and the Mazibuko Decisions*, 51 LES CAHIERS DE DROIT 521, 538–40 (2010) (Can.) (finding the Court's decision was prudent and appropriate given development challenges and the still fragile constitutional system of human rights in South Africa); Eusebius McKaiser, *Court Strikes Right Balance on Water for Poor People*, BUSINESS DAY, Oct. 13, 2009, <http://www.bdlive.co.za/articles/2009/10/13/court-strikes-right->

Johannesburg (2010)²³ case, where indigent petitioners challenged the government's policy to: a) designate a low amount of free basic water to fulfill the right to water and b) install prepaid water meters that shut off without notice, leaving individuals without water. The Constitutional Court, however, deferred to the government's expertise in determining the contours of economic, social, and cultural rights.

This Paper argues that the Constitutional Court—like so many other lawyers and bureaucrats, including respected international sources such as the United Nations Special Rapporteur on the Human Right to Safe, Clean Water—failed to see water provision not just as a problem of economy, but as a problem of ecology. Water becomes a limited economic resource when it is a mismanaged ecological resource. Thus in *Mazibuko*, as elsewhere, the Constitutional Court simply ignored what a government is required to do as a public trustee of an imperiled public resource: it ignored the part of the National Water Act that focused on sustaining the ecological Reserve for present and future generations—and thus failed to successfully manage its “available resources” as the Constitution demands.²⁴

These errors matter not just for the indigent population's ability to live lives of dignity; they matter for other nations looking to South African policies and subsequent jurisprudence as they craft their own responses to emerging international legal demands that governments respect, protect, and fulfill²⁵ the human right to water.

Despite the South African government's reluctance to fulfill the right to water more aggressively and the Constitutional Court's reluctance to require that they do so, lawmakers and bureaucrats have presented a vision of deeply equitable implementation of the human right to water. Deep equity means implementing and inspiring laws, policies, and values that simultaneously and

balance-on-water-for-poor-people (supporting the South African Constitutional Court's decision in *Mazibuko*, striking the right balance on maintaining the Court's institutional role with respect to socioeconomic policies).

22. See e.g., McGraw, *supra* note 16, at 198–99; O'Connell, *supra* note 16, at 532; Murray Wesson, *Reasonableness in Retreat? The Judgment of the South African Constitutional Court in Mazibuko v City of Johannesburg*, 11(2) HUM. RTS. L. REV. 390 (2011) (critiquing the Court's decision for its limited understanding of its role in enforcing social and economic rights and endorsement of a policy which would often deny poor people access to adequate water); Pierre De Vos, *Water Is Life (But Life Is Cheap)*, CONSTITUTIONALLY SPEAKING (Oct. 13, 2009), <http://constitutionallyspeaking.co.za/water-is-life-but-life-is-cheap>.

23. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) (S. Afr.). See generally O'Connell, *supra* note 16, at 550–52; Wesson, *supra* note 23 (providing a comprehensive overview of the legal arguments in *Mazibuko*).

24. S. AFR. CONST., 1996, § 27(2).

25. International Commission of Jurists (ICJ), *Maastricht Guidelines on Violations of Economic, Social and Cultural Rights*, Jan. 26, 1997, https://www1.umn.edu/humanrts/instree/Maastrichtguidelines_.html [hereinafter *Maastricht Guidelines*]; DE ALBUQUERQUE, RIGHT TRACK, *supra* note 5, at 22.

synergistically advance the health and potential of individuals, human communities, and nonhuman communities.²⁶

In four documents spanning seventeen years, South Africa has presented a remarkable vision for how governments can and must fulfill public trust responsibilities to protect the human right to water through the protection of the ecological source that nourishes that right. This Paper examine how, after getting the right to water right and then wrong, South Africa may be back on track to getting it right again. The four legal documents this Paper analyzes present a holistic, exemplary view of the role of water in community life. They ground the Public Trust Doctrine—legally and scientifically—in the actual ecological matrix that supports all life. They combine this with a fundamental commitment to correcting past discriminatory wrongs: water is the centerpiece that links equity to ecology. These documents provide a holistic, farsighted, and deeply equitable vision of water as a resource for sustainable economic development, grounded in a vision of the “indivisibility of water”²⁷ as the ecological resource that forms the basis of all human and nonhuman life.

The world’s nations face difficult choices for how to structure laws that enable all citizens to realize their right to safe, clean water. This situation will only worsen as human populations grow and climate change makes it more difficult to secure sources of water. In South Africa, the legal elements are aligned to manage the most imperiled and precious ecological resource equitably while providing for the needs of its citizens without depleting the Reserve for present and future generations of humans and nonhumans. If implemented close to the plans detailed in these documents, South Africa would reclaim its position as the international leader in demonstrating how to fulfill the right to water by satisfying public trust responsibilities as guardians and providers of a nation’s water resources, without wasting the economic or ecological reserves. South Africa has the chance to lead the world in development that is truly sustainable, fulfills human rights, and is deeply equitable for present and future generations of humans and nonhumans.

I. BACKGROUND

A. *The Right to Safe Clean Water*

Fresh, drinkable water is sparse and unevenly distributed on our planet, with poverty closely linked to water scarcity and water pollution.²⁸ The figures in the Introduction—over one billion people lacking access to safe clean water, with the catastrophic health impacts that portends—mean that currently, neither

26. David Takacs, *Forest Carbon Offsets and International Law: A Deep Equity Legal Analysis*, 22 GEO. INT’L ENVTL. L. REV. 521, 526 (2010).

27. DEP’T OF WATER AFFAIRS, RESOURCE STRATEGY, *supra* note 20, at 37.

28. Magaziner, *supra* note 3, at 550.

human rights law nor environmental law are successfully remedying this dire problem.

Scholars have reviewed how lawyers and other activists built the case for the human right to water.²⁹ Given water's centrality to realizing all other rights, it is odd that activists had to lobby for water's status as a fundamental human right. Perhaps the framers of the modern human rights treaties simply assumed water's perpetual availability: humans often take the gifts of nature for granted and pay attention only when these resources are no longer available.³⁰ Eventually, in 2010, the United Nations ("UN") General Assembly voted 122–0 (with forty-one abstentions) that the right to clean drinking water and sanitation is a human right that is "essential for the full enjoyment of life and all human rights."³¹

The UN Committee on Economic, Social, and Cultural Rights and various nongovernmental organizations ("NGOs"), have endeavored to put content behind the right, as has the UN-appointed Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, whose reports outline the contours of availability, quality, acceptability, affordability, and quantity.³² In a nutshell, according to the UN Committee, "The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses. An adequate amount of safe water is necessary to prevent death from dehydration, to reduce the risk of water-related disease and

29. See, e.g., de Albuquerque, *Good Practices*, supra note 22, at 4 (discussing development in international human rights law with respect to water and sanitation as well as initiatives and organizations working on rights to water and sanitation in the context of development cooperation); CATARINA DE ALBUQUERQUE, *REALISING THE HUMAN RIGHTS TO WATER AND SANITATION: A HANDBOOK*, INTRODUCTION 23–24 (2014) [hereinafter DE ALBUQUERQUE, *HANDBOOK*]; DE ALBUQUERQUE, *RIGHT TRACK*, supra note 5, at 25–27, 47–51; OFFICE OF THE U.N. HIGH COMM'R ON HUMAN RIGHTS, *THE RIGHT TO WATER: FACT SHEET NO. 35* 3–7 (2010), <http://www.ohchr.org/Documents/Publications/FactSheet35en.pdf>; S. AFR. HUMAN RIGHTS COMM'N, *REPORT ON THE RIGHT TO ACCESS SUFFICIENT WATER AND DECENT SANITATION IN SOUTH AFRICA: 2014* 24–34 (2014); Doug Donoho, *Some Critical Thinking About a Human Right to Water*, 19 ILSA J. INT'L & COMP. L. 91 (2012) (finding that recognition of international human right to water will face significant resistance domestically and internationally); Magaziner, supra note 3, at 550–60 (discussing ways in which the international community has declared legal and human right to water); McGraw, supra note 16 (explaining the legal content of the human right to water, including its minimum core, and the way in which national jurisprudence for the protection of water rights interacts with this international legal construct).

30. Gleick postulates "that the framers of the UDHR considered" the right water "as fundamental as air." Peter H. Gleick, *The Human Right to Water*, 1 WATER POL'Y 487, 491 (1998).

31. South Africa voted yes, and the United States abstained. G.A. Res. 64/292, supra note 8, at 2; General Assembly Press Release, supra note 7.

32. See, for example, the well-regarded CENTRE ON HOUSING RIGHTS AND EVICTIONS (COHRE) ET AL., *MANUAL ON THE RIGHT TO WATER AND SANITATION* (2007); Catarina de Albuquerque (Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation), *Common violations of the human rights to water and sanitation*, U.N. Doc. A/HRC/27/55 (June 30, 2014) [hereinafter de Albuquerque, *Common Violations*]; de Albuquerque, *Good Practices*, supra note 22; DE ALBUQUERQUE, *RIGHT TRACK*, supra note 5, at 32–35.

to provide for consumption, cooking, personal and domestic hygienic requirements.”³³

B. *The Right to Water Mischaracterized*

International human rights law divides the world between civil and political (“CP”) rights, often viewed as priority rights to be implemented immediately, and economic, social, and cultural (“ESC”) rights, to be realized progressively as resources allow.³⁴ The right to water has been classified both internationally and in South Africa’s Constitution as an ESC right, which is a misclassification. But even if it is not, its status as an ESC right is misinterpreted to allow underperformance of the right. If reclassified as a CP right, nations would then only be allowed to derogate from the obligation if resources (human, technological, financial, ecological) simply are not available through no fault of the government.

The UN Committee on Economic, Social and Cultural Rights advocates that access to clean water is a human right because it is “indispensable for leading a life in human dignity” and a “prerequisite to the realization of all other human rights.”³⁵ If an individual is deprived of water, he or she cannot enjoy any of the other essential rights. Water is, simply, life. Consider the preemptory *jus cogens* norms (i.e. norms which all states must obey without exception, including freedom from slavery and torture), an individual can survive these actions but cannot survive without clean, safe, water. As one scholar described it, “[w]ater is a peculiar ‘primary need’ because it is the only primary need a government is capable of providing for which there is no substitute. There are different kinds of food, energy, shelter, education, employment, and health care. But only water is water.”³⁶ According to U.S. water expert Peter Gleick, to fail to recognize a fundamental right to water, “would mean that there is no right to the single most important resource necessary to satisfy the human rights more explicitly guaranteed by the world’s primary human rights declarations and covenants.”³⁷

For now, the right to water remains an ESC right. Human rights lawyers debate the most theoretically and practically apt approach to the right to water and other ESC rights. For example, how to define an empirically based minimum core that provides a lodestar to lawmakers, advocates, and judges?

33. General Comment No. 15, The Right to Water (Arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights), CESCR on Its Twenty-Ninth Session, U.N. Doc. E/C.12/2002/11 (Jan. 20, 2003), *reprinted in* Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies, ¶ 2, U.N. Doc. HRI/GEN/1/Rev.6 (May 12, 2003) [hereinafter General Comment 15].

34. LORI F. DAMROSCH ET AL., INTERNATIONAL LAW: CASES AND MATERIALS 978 (5th ed. 2009); JAVAD REHMAN, INTERNATIONAL HUMAN RIGHTS LAW: A PRACTICAL APPROACH 6–7 (2003).

35. General Comment 15, *supra* note 34, at ¶ 1.

36. Larson, *supra* note 5, at 2193.

37. Gleick, *supra* note 31, at 493.

What about using a sliding scale of “reasonableness” to adjudicate whether a particular entity has made sufficient progress in realizing the particular right? This Paper argues that an approach worth defending is to make it the default obligation for governments to ensure every citizen has secured a minimum core supply of safe, clean water. The UN Committee on Economic, Social and Cultural Rights believes that “a minimum core obligation to ensure the satisfaction of, at the very least, minimum essential levels of each of the rights is incumbent upon every State party” within available resources.³⁸ The Committee notes that “sufficient” water is what is necessary to “prevent death from dehydration, to reduce the risk of water related disease and to provide for consumption.”³⁹

Under whichever aegis the right to water is classified, experts can derive this minimum core from empirical data of how much a human needs to survive and thrive.⁴⁰ The UN Development Programme urges a survival minimum of twenty liters per person per day (the average person in the United States uses more than twenty times that amount),⁴¹ while the World Health Organization and the UN General Assembly’s resolution specify that the right is fulfilled when everyone has access to fifty to one hundred liters per day within one kilometer of a residence and which costs less than three percent of a household income.⁴² Peter Gleick’s affidavit in the *Mazibuko* case provides empirical evidence for a fifty liters per person per day minimum for “cleaning, hygiene, drinking, cooking, and basic sanitation,”⁴³ i.e., to be able to lead a dignified life. Absolute amounts can be higher for special cases (e.g., pregnant women, people with HIV/AIDS, people who do hard labor and/or live in hot climates).

C. Progressive Realization, Progressive Loopholes

The South African Constitution provides a large margin of discretion on the right to water: the “state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights.”⁴⁴ This language parallels the loophole in the 1966 International

38. General Comment No. 3, The Nature of States Parties’ Obligations (art. 2 para. 1 of the Covenant), CESCR on Its Fifth Session, 86 U.N. Doc. E/1991/23, Annex III (1991), reprinted in *Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies*, ¶ 10, U.N. Doc. HRI/GEN/1/Rev.6 (May 12, 2003) [hereinafter General Comment 3].

39. General Comment 15, *supra* note 34, at ¶ 2. Although South Africa did not ratify the International Covenant on Economic Social and Cultural Rights until January 2015, in *Mazibuko*, High Court Judge Tsoka nonetheless cited the Covenant’s expert committee for expert guidance.

40. McGraw, *supra* note 16, at 199.

41. HUMAN DEVELOPMENT REPORT, *supra* note 4, at 5.

42. G.A. Res 64/292, *supra* note 8; HUMAN DEVELOPMENT REPORT, *supra* note 4, at 34.

43. Patrick Bond & Jackie Dugard, *The Case of Johannesburg Water: What Really Happened at the Pre-Paid ‘Parish Pump,’* 12 L. DEMOCRACY & DEV. 1, 13 (2008); Magaziner, *supra* note 3, at 578.

44. S. AFR. CONST., 1996, § 27(2); McGraw, *supra* note 16, at 153.

Covenant on Economic, Social, and Cultural Rights (ICESCR):⁴⁵ “Each State Party to the present Covenant undertakes to take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures.”⁴⁶

Thus, “Progressive realization” of ESC rights gives wide latitude to governments on how, when, where, and why they provide certain services, and gives courts similar latitude in judging whether or not governments are making adequate progress toward fulfilling a given right.⁴⁷ But it doesn’t give unlimited latitude, as the Committee on Economic, Social, and Cultural Rights points out: “the burden is on the State to demonstrate that it is making measurable progress toward the full realization of the rights in question. The State cannot use the ‘progressive realization’ provisions in article 2 of the Covenant as a pretext for non-compliance.”⁴⁸

In the 1987 Limburg Principles, the International Commission of Jurists⁴⁹ noted that progressive realization of an ESC right means “equitable and effective use of and access to the available resources” for citizens owed rights.⁵⁰ Revisiting those standards ten years later, the Commission further elaborated. Recognizing the reality of market-based reforms (in the context of water this means privatizing water provision or water itself), it nonetheless reiterated that States are ultimately responsible for provision of ESC rights.⁵¹ The jurists noted that like civil and political rights, ESC rights impose obligations to respect (refrain from interfering or directly restricting), protect (prevent violations by third parties), and fulfill (“to take appropriate legislative, administrative, budgetary, judicial and other measures towards the full realization of”) a given right.⁵² While States have a “margin of discretion” in how they implement ESC

45. While President Nelson Mandela signed the ICESCR in 1994, it wasn’t until January 2015 that the South African legislature ratified the Convention.

46. International Covenant on Economic, Social and Cultural Rights art. 2(1), Dec. 16, 1966, 993 U.N.T.S. 3.

47. McGraw, *supra* note 16, at 153.

48. *Maastricht Guidelines*, *supra* note 26, at ¶ 8.

49. See generally INTERNATIONAL COMMISSION OF JURISTS, <http://www.icj.org> (last visited Mar. 17, 2016).

50. Permanent Mission of the Netherlands to the United Nations Office at Geneva, Address to the Centre for Human Rights, The Limburg Principles on the Implementation of the International Covenant on Economic, Social and Cultural Rights, U.N. Doc E/CN.4/1987/17, Annex (Aug. 1, 1987), *reprinted in* 9 HUM. RTS. Q. 122 (1987), http://www.soas.ac.uk/cedep-demos/000_P514_IEL_K3736-Demo/treaties/media/1987%20UN%20Limburg%20principles.pdf [hereinafter *Limburg Principles*].

51. *Maastricht Guidelines*, *supra* note 26.

52. *Id.* ¶ 6. Similarly, “Violations of economic, social and cultural rights can occur through the direct action of States or other entities insufficiently regulated by States. Examples of such violations include: I The active support for measures adopted by third parties which are inconsistent

rights, decisions by international experts and various domestic courts provide requirement guidelines.⁵³ The Commission is explicit that a minimum core of some rights exists.⁵⁴ Finally, the Commission outlines acts of omission, i.e. failure to take certain steps including: (a) the failure to utilize the maximum of available resources towards the full realization of the Covenant, (b) the failure to remove promptly obstacles which it is under a duty to remove, and (c) the failure to meet a generally accepted international minimum standard of achievement, which is within its powers to meet.⁵⁵

According to South African scholar Reynaud Daniels, available resources “include human resources, technological resources, information resources as well as material and financial resources.”⁵⁶ As the Limburg Principles state, “[t]he obligation of progressive achievement exists independently of the increase in resources; it requires effective use of resources available.”⁵⁷ And, as this Paper will discuss, South African government water providers have not made efficient use of available technological or financial resources.

Missing both here and in analysis (including the courts’ own analyses) of the right to water is the discussion of *ecological* resources. This Paper will return to this in great detail below in the South African context.

D. Economic, Social, and Cultural Rights Jurisprudence in South Africa

The South African Constitution buttressed the right to water and other ESC rights with additional rights to equality,⁵⁸ dignity,⁵⁹ a healthy environment,⁶⁰ participation in decision-making,⁶¹ and to access effective government.⁶² South Africa has received international attention for its Constitutional Court’s adjudication of ESC rights.⁶³ In *The Government of the Republic of South Africa v. Irene Grootboom*,⁶⁴ indigent citizens successfully sued the government for violating numerous ESC rights. The Constitutional Court held that the

with economic, social and cultural rights.” *Id.* ¶ 14.

53. *Id.* ¶ 8.

54. *Id.* ¶ 9.

55. Maastricht Guidelines, *supra* note 26, ¶¶ 15(e), 15(g), 15(i).

56. Reynaud Daniels, *Implementation of the Right of Access to Sufficient Water Through Privatization in South Africa*, 15 PENN. ST. ENVTL. L. REV. 61, 82 (2006) (footnotes omitted); Robert E. Robertson, *Measuring State Compliance with the Obligation to Devote the “Maximum Available Resources” to Realizing Economic, Social and Cultural Rights*, 16 HUM. RTS. Q. 693, 693–702 (1994).

57. Limburg Principles, *supra* note 51, ¶ 23.

58. S. AFR. CONST., 1996, § 9.

59. *Id.* § 10.

60. *Id.* § 24.

61. *Id.* §§ 32–34.

62. *Id.* § 195.

63. Malcolm Langford, *Domestic Adjudication and Economic, Social and Cultural Rights: A Socio-Legal Review*, 6 INT’L J. ON HUM. RTS. 11, 91 (2009).

64. *Gov’t of the Republic of S. Afr. v. Grootboom* 2000 (11) BCLR 1169 (CC) (S. Afr.)

government is obliged “to provide access to housing, health-care, sufficient food and water, and social security to those unable to support themselves and their dependants. The state must also foster conditions to enable citizens to gain access to land on an equitable basis.”⁶⁵ The Court acknowledged that it is an “extremely difficult task for the state to meet these obligations in the conditions that prevail in [the] country,” but held that “despite all these qualifications, these are rights, and the Constitution obliges the state to give effect to them.”⁶⁶ Noting the “harsh reality that the Constitution’s promise of dignity and equality for all remains for many a distant dream,”⁶⁷ the Court ruled that it is “beyond question” that all the rights of the constitution are justiciable but the question remains of “how to enforce them in a given case.”⁶⁸ The government’s obligations to fulfill these rights are manifold. Legislation alone is not enough and must be “supported by appropriate, well-directed policies and programmes,” which themselves “must also be reasonably implemented.”⁶⁹ While the Court acknowledged that available resources may constrain what the government is capable of doing, in this case the “nationwide housing programme f[ell] short of obligations imposed upon national government to the extent that it fail[ed] to recognise that the state must provide for relief for those in desperate need.”⁷⁰

Two years later, in the internationally influential *Treatment Action Campaign v. Minister of Health*, the Court held that the government was not “reasonable” when it withheld access to a drug that prevented HIV transmission from mother to child when the government had the resources to provide the drug more widely.⁷¹ And in *Khosa v. Minister of Social Development*, the Court held that it was unreasonable to withhold ESC benefits (in that case, social security) from a permanent resident who was not a full citizen.

What the Court did not do in these cases was adopt a “minimum core” standard that specified some foundational level of a given right that the government must guarantee. Instead, the Court adopted a “reasonableness” standard for judging government’s adequacy in fulfilling ESC rights, and left it to the government to make sufficient progress towards fulfilling these rights, applying a higher level of scrutiny when rights of the most indigent are allegedly impaired.⁷²

65. *Id.* at para. 93.

66. *Id.* at para. 94.

67. *Id.* at para. 2.

68. *Id.* at para. 20.

69. *Id.* at para. 42.

70. *Id.* at para. 66.

71. *Treatment Action Campaign v. Minister of Health*, 2002 (5) SA 721 (CC) at paras. 67–73 (S. Afr.).

72. *Grootboom* 2000 (11) BCLR 1169 (CC) at paras. 66–69; Francis, *supra* note 14, at 189–90; Kotzé & Bates, *supra* note 13, at 248.

E. Background on the Right to Water in South Africa

In the case of *Mazibuko v. City of Johannesburg*, which is discussed at length below, the Constitutional Court introduced the problem of water in South Africa:

Although rain falls everywhere, access to water has long been grossly unequal. This inequality is evident in South Africa. While piped water is plentifully available to mines, industries, some large farms and wealthy families, millions of people, especially women, spend hours laboriously collecting their daily supply of water from streams, pools and distant taps. In 1994, it was estimated that 12 million people (approximately a quarter of the population), did not have adequate access to water. By the end of 2006, this number had shrunk to 8 million, with 3.3 million of that number having no access to a basic water supply at all.⁷³

Currently, between 85 percent (according to the South African Human Rights Commission) and 94.8 percent (according to the Department of Water Affairs) of South African households have access to a basic supply of water; however, in some poorer areas, that figure is much lower.⁷⁴ For example, in the relatively wealthy Western Cape province, over 75 percent of residents have water piped into their dwelling, and only 3.3 percent lack a basic supply within two hundred meters of their home. On the other hand, in Limpopo province, only 18.4 percent of residents have water piped into their home, and 27.2 percent lack access to a regular supply of acceptable water within two hundred meters.⁷⁵

South Africa has improved access to safe, clean water despite facing tremendous challenges. South Africa is the thirtieth driest country in the world.⁷⁶ It has few rivers, no mountain snow pack, low annual rainfall, and extreme seasonal variability in precipitation. Ninety-two percent of water evaporates before reaching a waterway.⁷⁷ The country is currently using ninety-eight percent of its available water supply.⁷⁸ Yet water demand is expected to grow by over thirty percent by 2030.⁷⁹ The country suffers from droughts, which will only be exacerbated by climate change. South Africa's temperature increase

73. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at para. 2 (S. Afr.); *but see* DEP'T OF WATER AFFAIRS, STRATEGIC PLAN, *supra* note 10 (offering different figures).

74. S. AFR. HUMAN RIGHTS COMM'N, *supra* note 30, at 14; DEP'T OF WATER AFFAIRS, STRATEGIC PLAN, *supra* note 10; Kotzé & Bates, *supra* note 12, at 230.

75. S. AFR. HUMAN RIGHTS COMM'N, *supra* note 30, at 38–39.

76. SIP 19, *supra* note 13, at 15.

77. D.C. Le Maitre et al., *Invasive alien trees and water resources in South Africa: case studies of the costs and benefits of management*, FOREST ECOLOGY AND MANAGEMENT 160, 143–59 (2002); DEP'T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20, at 8–9.

78. JESSICA WILSON & TARYN PEREIRA, WATER DEMAND MANAGEMENT'S SHADOW SIDE: TACKLING INEQUALITY AND SCARCITY OF WATER PROVISION IN CAPE TOWN 18 (2012); Lorenzo Fioramonti, *Water Shortages About to Put Load-Shedding in the Dark*, BUSINESS DAY, May 5, 2015, <http://www.bdlive.co.za/opinion/2015/05/05/water-shortages-about-to-put-load-shedding-in-the-dark>.

79. WWF-SA, FARMING FACTS AND FUTURES: RECONNECTING SOUTH AFRICA'S FOOD SYSTEMS TO ITS ECOSYSTEMS 20 (Inge Kotzé & Marlene Rose eds., 2015).

during the past five decades has been twice the global average.⁸⁰ Alien invasive plants choke waterways. A high percentage of South Africa's water originates in neighboring countries, beyond domestic control in terms of quantity and quality.⁸¹ Populations are mismatched to water sources; due to its history, a large proportion of the population live near the mines or other industries where they worked and/or were segregated in distant former "homelands" apart from White population centers.⁸² As a further legacy of apartheid, water rights have been linked to land ownership, which was formerly limited to Whites. Irrigated agriculture uses about sixty percent of the available water, and industry another sixteen percent, leaving only a small portion of scarce water available for basic human needs.⁸³

Since liberation, South Africa has struck an uneasy balance between water as a human right entitlement and as an economic commodity.⁸⁴ At the end of apartheid, the nation was desperate for international financing to improve conditions for the majority of its citizens who had been cruelly underserved. At the same time, South Africa was leading the world in requiring progressive fulfillment of citizens' rights to safe, clean water, a parallel philosophy emerged internationally: when water is given away, it is wasted, and thus governments should stop providing water (and other services) for free.⁸⁵ International lenders encourage governments to outsource water (and other services) provision to private companies; if governments continue to directly provide services, they should regard citizens as paying consumers and aim for full cost recovery for providing the service.⁸⁶

In exchange for World Bank loans, the South African government bought into the paradigm of "fiscal responsibility" in water delivery.⁸⁷ While the Public Trust Doctrine (see below) demands that water stay in public hands, the South African government nonetheless requires that water service providers run on a private sector model: water isn't something that can just be given away.⁸⁸ Below this Paper will explore the tensions inherent to charging people for water as an

80. *Id.* at 22; SIP 19, *supra* note 13, at 20–23.

81. Kotzé & Bates, *supra* note 13, at 231.

82. Francis, *supra* note 14, at 153–54.

83. DEP'T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20, at 55; WWF-SA, *supra* note 81, at 22.

84. *See* S. AFR. HUMAN RIGHTS COMM'N, *supra* note 30, at 26–27.

85. For more on how this philosophy evolved, see David Takacs, *Water Sector Reform and Principles of International Environmental Law*, in *WATER LAW FOR THE TWENTY-FIRST CENTURY: NATIONAL AND INTERNATIONAL ASPECT OF WATER LAW REFORM IN INDIA* 260, 262–72 (Philippe Cullet et al. eds., 2009).

86. *See generally, id.* at 260–86.

87. In 2011, the debt interest on these loans was \$4 billion USD. *See e.g.*, Bond & Dugard, *supra* note 44, at 17; Francis, *supra* note 14, at 157; Peter Danchin, *A Human Right to Water? The South African Constitutional Court's Decision in the Mazibuko Case*, EJIL: TALK! (Jan. 13, 2010), <http://www.ejiltalk.org/a-human-right-to-water-the-south-african-constitutional-court%E2%80%99s-decision-in-the-mazibuko-case/>.

88. For an analysis of this development, see, for example,

economic good and providing water as a human right and a social good.⁸⁹ South Africa, though one of the continent's richest nations, still suffers from staggering inequality and large numbers of impoverished people, which the South African Human Rights Commission calls "an enduring apartheid spatial geography."⁹⁰ The politics of full cost recovery for water, as seen below, reifies these cartographic economic and racial distinctions. In the words of South African economist Guy Mhone, "[i]n the hearts and minds of every black South African, nothing will ever compare to apartheid . . . But there is a very real frustration now that we have only exchanged the savagery of apartheid for the savagery of an untethered free market."⁹¹

South Africa also faces daunting social problems that exacerbate the difficulties surrounding the right to water. At the time of this writing, a wave of violent xenophobia has been unleashed, aimed at migrants who compete with citizens for jobs.⁹² Over five million South Africans are estimated to be HIV positive, with the government straining to provide drugs and services to them.⁹³ The education system is poor, unemployment is rampant, and income inequality between rich and poor (and thus White and Black) is growing, not shrinking.⁹⁴ Poor governance and corruption plagues sectors of South Africa's government.⁹⁵ This was a common theme—voiced by government functionaries, NGO activists, and citizens—everywhere in South Africa. Local government agencies are poorly equipped to provide water services.⁹⁶ They face inadequate budgets, insufficient technical expertise, a dire shortage of water engineers, and inadequate supervision of external contractors meant to deliver water or install water technology (e.g., infrastructure in social housing)—to deliver the services that the central government has devolved to them.⁹⁷ At the time of this writing, South Africa is experiencing "load shedding," where the nation's inadequate electricity generating capacity means many areas of the country go dark for at

89. For further discussion on a neoliberal view of water as an economic commodity with special attention to South Africa, see, for example, Bond & Dugard, *supra* note 44, at 4; S. AFR. HUMAN RIGHTS COMM'N, *supra* note 30, at 7; Magaziner, *supra* note 3, at 523–24; O'Connell, *supra* note 16, at 534; Tara E. Paul, *Plugging the Democracy Drain in the Struggle for Universal Access to Safe Drinking Water*, 20 IND. J. GLOBAL LEGAL STUD. 469, 471–72 (2013); Barton H. Thompson, Jr., *Water as a Public Commodity*, 95 MARQ. L. REV. 17 (2011).

90. S. AFR. HUMAN RIGHTS COMM'N, *supra* note 30, at 7.

91. Jon Jeter, *South Africa's Driest Season*, MOTHER JONES, Nov. 1, 2002, at 1, <http://www.motherjones.com/politics/2002/11/south-africas-driest-season>.

92. See David Smith, *Xenophobia in South Africa: 'They Beat My Husband With Sticks and Took Everything'*, GUARDIAN Apr. 17, 2015, <http://www.theguardian.com/world/2015/apr/17/xenophobia-south-africa-brothers-violence-foreigners>.

93. See Humby & Grandbois, *supra* note 22, at 525.

94. See, e.g., Liebbrandt, *supra* note 15, at 19; OECD, *supra* note 15, at 24–25.

95. See, e.g., S. AFR. HUMAN RIGHTS COMM'N, *supra* note 30, at 14; Kotzé & Bates, *supra* note 13, at 231; OECD, *supra* note 15, at 19.

96. OECD, *supra* note 15, at 25.

97. See e.g., S. AFR. HUMAN RIGHTS COMM'N, *supra* note 30, at 14–16; Humby & Grandbois, *supra* note 22, at 528.

least two hours a day.⁹⁸ While an individual can live two hours a day without electricity, in conversations with authorities I was warned that a coming era of ‘water shedding’ will make life considerably more difficult. This is just an inkling of the broader milieu in which the struggle for water in South Africa plays out.

F. *Deep Equity and the Right to Water*

“Deep equity”⁹⁹ means laws, policies, or actions are “right” or “good” if they simultaneously and synergistically maximize individual human health and potential, human community health and potential, and non-human health and potential. Equity is deep when values become rooted within each individual, when we fundamentally reimagine our community and government structures and responsibilities, and when these values and responsibilities become entrenched and encoded in our legal systems. In turn, our laws would then support policies, actions, and values promoting even deeper equity.

The South African Human Rights Commission asserts that the Constitution’s “revolutionary commitment to dignity, equality and social justice has the potential to transform old fault-lines of political, economic and social power.”¹⁰⁰ The framework South Africa has provided for the right to water in the four legal and policy documents discussed below present a deeply equitable vision of the role of water in community life. When resurrecting the Public Trust Doctrine, lawmakers specified that government trustees must manage water supplies to sustain human individuals and communities while preserving the ecological matrix from which all water comes—which simultaneously and synergistically sustains nonhuman lives now and in the future. All water provision is rooted in the twin goals of serving the needs of the most indigent while sustaining a “Reserve,” explicitly intended to sustain adequate supplies of water for present and future generations of humans and nonhumans. This vision of intra- and intergenerational equity inextricably ties essential human needs to the ecological source that fulfills those human needs, putting responsibility in the hands of the public trustees to manage a fragile, life sustaining ecological resource. If the legal frameworks detailed in the four documents below are implemented well, they provide a model for all nations (developed and developing) for how to manage and maximize in a deeply equitable way a scarce resource for a population with growing needs.

G. *Thinking about Environmental Problems*

How we conceive of environmental problems shapes how we solve these problems in law. Environmental law covers wide ground as it addresses

98. Norimitsu Onishi, *Weak Power Grids in Africa Stunt Economies and Fire Up Tempers*, N.Y. TIMES, July 2, 2015.

99. For elaboration, see Takacs, *supra* note 27.

100. S. AFR. HUMAN RIGHTS COMM’N, *supra* note 30, at 7.

environmental problems, which occur when human action impacts assets from the nonhuman biological or physical world, creating difficulties for humans or nonhumans. Thus water scarcity is an environmental problem because it concerns a resource from the physical world (water) adversely impacted by human action (overuse, inequitable distribution, pollution from erosion, waste water treatment plants, industries, and mining),¹⁰¹ and neglect of technological and ecological infrastructure with resulting problems for humans (shortage or contamination) and/or nonhumans (shortage or contamination). Thus, environmental laws about water may address a spectrum of concerns: how best to fulfill the human right to a basic share of clean water? How best to protect nonhuman species that also require clean water? Who or what may use shared waterways? What type of infrastructure is constructed and maintained? Who must steward water resources? Who participates in decision making about how water is distributed and managed?

Too often in South Africa (and elsewhere), water managers have derived legal solutions to environmental problems that are not rooted in environmental law. For example, they frame the problem of water scarcity as people not paying (not paying enough or at all) for the water they receive, thus wasting it.¹⁰² The South African National Water Act 36 of 1998 declares: “Water use charges will be used as a means of encouraging reduction in waste, and provision is made for incentives for effective and efficient water use. Non-payment of water use charges will attract penalties, including the possible restriction or suspension of water supply from a waterwork or of an authorization to use water.”¹⁰³ Even if the assumption is wholly or partly true (I will interrogate this below), this takes an economic approach to an environmental problem. Without environmental approaches to the environmental problem, “progressive realisation” of the right to water is not nearly as progressive as it could or should be.

Do we waste what we don't value, and don't value it unless we pay for it? Water law scholar Rhett Larson suggests that “[a] provision right to water framed in a manner opposed to water pricing and cost recovery is not only counterproductive to its presumed end of protecting disadvantaged communities but it also poses risks to ecologic sustainability and human health. Appropriate water pricing encourages sustainable use.”¹⁰⁴ He adds, “focus on low- or no-cost water services of the provision right to water raises serious concerns as to its ecologic sustainability.”¹⁰⁵ Similarly, water law expert Barton Thompson asserts “[p]ricing, markets, and even the participation of private entities have helped

101. See WWF-SA, *supra* note 81, at 20.

102. See, e.g., National Water Act 36 of 1998, § 56 (S. Afr.). For what it would look like to decommodify water, see Bond & Dugard, *supra* note 44, at 4.

103. National Water Act 36 of 1998, ch. 5.1 (S. Afr.).

104. Larson, *supra* note 5, at 2230.

105. *Id.* at 2235.

ensure that water is not wasted and, when properly directed and regulated, can help promote the environment and increase drinking-water access.”¹⁰⁶

But there is a catch: companies—be they private companies or State-run companies such as Johannesburg Water Ltd. (discussed below)—have bought into the logic of neoliberalism, the belief that free markets handle resource distribution better than meddling governments, and that commodifying all resources leads to their more efficient distribution.¹⁰⁷ Neoliberalism suggests that even government agencies should earn their profits or recoup budgets through charging for water. But because they must make the spreadsheets balance out, government agencies have perverse incentive to increase revenue by encouraging *greater* water use. So, for example, Johannesburg Water Ltd. charges high, difficult to afford prices in the water pricing bracket just above basic use, and fail to set higher prices in the “hedonistic” gluttonous use practice.¹⁰⁸ This results in a lose-lose strategy: poor people cannot afford to pay for basic water beyond the (too low) twenty-five daily liters per person, while rich people have no incentive to conserve. These policies not only violate statutes and constitutional provisions marrying equity to ecology, they foster a system designed to maximize, not conserve, water use.¹⁰⁹

South African water managers in the late 1990s saw some aspects of this as they drafted the White Paper and National Water Act. These documents walk a delicate line between neoliberal economics, human rights and equity, and a broader vision of ecological management. The documents see water provision not merely as an economic problem, but as an environmental problem. While the vision of those documents has not been fully realized, more recent documents (analyzed below) marry economic, human rights and ecological approaches to the right to water. In so doing, they come closer to satisfying the exigencies of what government officials must do to respect, protect, and fulfill the right to water, and to execute their public trust responsibilities.

II.

SOUTH AFRICA AND THE PUBLIC TRUST DOCTRINE: MARRYING EQUITY TO ECOLOGY

A. Introduction

This Paper bookends its descriptions of South Africa “getting it right” on the right to water by analyzing four documents. Two emerged shortly after independence: the 1997 White Paper on a National Water Policy for South

106. Thompson, *supra* note 91, at 19.

107. For a discussion of neoliberalism in the ESC rights context, see Kotzé & Bates, *supra* note 13, at 248; O’Connell, *supra* note 16, at 534–40.

108. See, e.g., Bond & Dugard, *supra* note 44, at 6; Lucy A. Williams, *The Justiciability of Water Rights: Mazibuko v. City of Johannesburg*, 18 WILLAMETTE J. INT’L L. & DIS. RES. 211, 245 (2010).

109. See WILSON & PEREIRA, *supra* note 80, at 17.

Africa and the 1998 National Water Act.¹¹⁰ Two are more recent: the 2013 revised National Water Resources Strategy and the 2014 Water as Ecological Infrastructure Strategic Integrated Project.¹¹¹ These visionary documents present a holistic view of the role of water in community life. They ground the Public Trust Doctrine—legally and scientifically—in the ecological matrix that supports all life. They combine this with a fundamental commitment to righting past discriminatory wrongs; water is the centerpiece that links equity to ecology. If the government implemented the promises in these documents, it would provide a remarkable, deeply equitable law and policy framework that would provide a pathway—indeed, the only realistic pathway—to realizing the human right to water for all citizens.

The emerging framework for managing water in South Africa begins with the Public Trust Doctrine, which delineates a government’s responsibility to manage and steward essential resources sustainably. It adds the constitutional (and internationally proclaimed) human right to an entitlement of water required for a dignified life¹¹² is grounded in a particular historical understanding of what equity really means, derived from a recent history that epitomized state-sponsored repression. While the White Paper on a National Water Policy calls this conception of the Public Trust Doctrine “uniquely South African,”¹¹³ it nonetheless provides a model for citizens everywhere to enjoin their governments to conceive of their public trustee role as one that they can only fulfill through action based on deeply equitable principles.

On the path to implementing in law the constitutional mandate that “[e]veryone has the right to have access to . . . sufficient food and water,”¹¹⁴ South Africa produced a visionary White Paper on Water Policy in 1997, which laid the groundwork for the 1998 National Water Act (“NWA”).¹¹⁵ The 1997 White Paper prepared the foundation for reinstating the Public Trust Doctrine. It noted that “[i]n Roman law (on which South African law is based) rivers were viewed as resources which belonged to the nation as a whole and were available for common use by all citizens, but were controlled by the state in the public interest. These principles fit in well with African customary law which saw water as a common good used in the interest of the community.”¹¹⁶ The White Paper proclaims:

110. National Water Act 36 of 1998, ch. 5.1 (S. Afr.); DEP’T OF WATER AFFAIRS & FORESTRY, *supra* note 11.

111. DEP’T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20; SANBI, A FRAMEWORK FOR INVESTING IN ECOLOGICAL INFRASTRUCTURE IN SOUTH AFRICA (2014).

112. S. AFR. CONST., 1996, § 10 (“Everyone has inherent dignity and the right to have their dignity respected and protected.”).

113. DEP’T OF WATER AFFAIRS & FORESTRY, *supra* note 11, at § 5.1.2.

114. S. AFR. CONST., 1996, § 27, subsec. 1(b).

115. National Water Act 36 of 1998 (S. Afr.); DEP’T OF WATER AFFAIRS & FORESTRY, *supra* note 11.

116. DEP’T OF WATER AFFAIRS & FORESTRY, *supra* note 11.

The recognition of Government's role as custodian of the 'public trust' in managing, protecting and determining the proper use of South Africa's water resources . . . is a central part of the new approach to water management. As such it will be the foundation of the new water law. The main idea of the public trust is that the national Government has a duty to regulate water use for the benefit of all South Africans, in a way which takes into account the public nature of water resources and the need to make sure that there is fair access to these resources. The central part of this is to make sure that these scarce resources are beneficially used in the public interest.¹¹⁷

The 1998 National Water Act translates the principles of the Public Trust Doctrine into statutorily imposed duties, declaring that the National Government will be "the public trustee of the nation's water sources" and must "ensure that water is protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner, for the benefit of all persons and in accordance with its constitutional mandate."¹¹⁸

Labeling water as a human right adds weight on one side of the balance when governments evaluate public trust duties against other pressing needs. When the right to water is named in the South African Constitution and implemented in law, it gives citizens greater ability to claim their rights, gives government greater responsibility to safeguard them, and gives courts greater latitude to police government conduct. When legislators and water managers disinterred South Africa's Public Trust Doctrine, they supplied a time tested (over fifteen hundred years) legal rationale for protecting these resources that adds further legal gravitas for the public to demand that the government steward vital resources responsibly.¹¹⁹ Private parties must never be allowed to accrue and squander these resources.

In addition to tying the ancient Public Trust Doctrine to a more novel human rights concept, reawakening the Public Trust Doctrine provides additional ideological and legal support for the government's assertion of control over environmental resources, to which a nation's citizens have new, constitutionally mandated, and judicially reinforced fundamental human rights. While drawing on the doctrine's hoary history for legitimization, the White Paper's authors nonetheless stated that "the idea of water as a public good will be redeveloped into a doctrine of public trust which is uniquely South African . . ."¹²⁰

117. *Id.* at § 5.1.2.

118. National Water Act 36 of 1998, ch.1 § 3(1) (S. Afr.).

119. This is the essential message of MARY CHRISTINA WOOD, *NATURE'S TRUST: ENVIRONMENTAL LAW FOR A NEW ECOLOGICAL AGE* (2014) and the seminal work of Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 484 (1970); David Takacs, *The Public Trust Doctrine, Environmental Human Rights, and the Future of Private Property*, 16 N.Y.U. ENVTL. L.J. 711, 713-15 (2008).

120. DEP'T OF WATER AFFAIRS & FORESTRY, *supra* note 11, at § 5.1.2; *see also* The National Environmental Management Act 107 of 1998, ch. 1. § 2, subsec. 4(o) (S. Afr.). (reaffirming the Public Trust Doctrine as the governing ideology for all natural resources: The "environment is held in public trust for the people. . .the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage.").

To do so, the White Paper grounds the Public Trust Doctrine in considerations of equity—a concept that had been in vicious retreat in the preceding centuries in South Africa—and to a revitalized concept of environmental democracy.¹²¹ The democratic rights the Public Trust Doctrine (ideally) invests in each citizen to defend the Trust dovetail powerfully with procedural rights guaranteed by the post-apartheid Constitution.¹²² The Public Trust Doctrine helps effectuate citizens’ constitutional right to “[j]ust administrative action,”¹²³ to court access,¹²⁴ and “access to information.”¹²⁵ These rights, when applied to environmental issues, foreshadow and help establish emerging Environmental Democracy customary international law principles, including the right to participate in environmental decision making, the right to access to information to make that participation effective, and the right to redress and remedy when these principles are violated.¹²⁶ The Public Trust Doctrine is not just a prescription for how governments must manage natural resources; it is also a prescription for how governments must honor citizens’ rights to participate in an environmental democracy.¹²⁷ In the words of Joseph Sax, naming a resource to the public trust means citizens can defend their trust rights in court “as a claimant of rights to which he is entitled,” namely wise stewardship of a shared resource.¹²⁸ As Mary Cristina Wood expressed, “[t]he public trust can inspire a narrative that imbues citizens with a firmer sense of legal standing toward their government. . .the trust identifies citizens as beneficiaries holding a *public property right* to crucial natural assets. . .This common property right postures citizens to monitor the commonwealth and empowers them to demand enforcement of their collective trust.”¹²⁹

The new democracy in South Africa also required reconsidering how natural resources have been allocated. Twentieth century water rights in South Africa were tied to land ownership, which was codified in an aggressively racially discriminatory way. As the White Paper frankly acknowledges, “many of the Country’s previous water projects were built to serve the interests of a

121. See Takacs, *supra* note 121, at 717–18.

122. It should be noted that various experts I consulted with in South Africa suggested those procedural rights are currently under great threat from restrictive government policies.

123. S. AFR. CONST., 1996, § 33(1) (“Everyone has the right to administrative action that is lawful, reasonable, and procedurally fair.”).

124. “Everyone has the right to have any dispute that can be resolved by the application of law decided in a fair public hearing before a court [“or impartial forum or tribunal”]. . .” *Id.* at § 34.

125. “Everyone has the right of access to— (a) any information held by the state; and (b) any information that is held by another person and that is required for the exercise or protection of any rights.” *Id.* § 32(1).

126. David Takacs, *Environmental Democracy and Forest Carbon (REDD+)*, 44 LEWIS & CLARK ENVTL. L. 71 (2014).

127. Wood, *supra* note 121, at 272–76 (2014).

128. Larson, *supra* note 5, at 2248–49; Sax, *supra* note 121; Takacs, *supra* note 121. Rhett Larson suggests that the *Mazibuko* plaintiffs could have argued that the prepaid water provisions violated them of their public trust property and participation rights.

129. Wood, *supra* note 121, at 272–73.

minority of water users within what was already a privileged minority of the Country's population."¹³⁰ When apartheid was abolished the government should have also abolished its system of managing access to land and water.¹³¹

Situating the Public Trust Doctrine as a return to a legal regime that was impermissibly ignored during apartheid helps the government avoid takings claims when revoking water rights from citizens. While the Constitution's § 25 supports private property rights and the government can only take property "for a public purpose or in the public interest," compensation may be denied or reduced if the rights were given under apartheid. Because the "public interest includes the nation's commitment to land reform, and to reforms to bring about equitable access to all South Africa's natural resources,"¹³² owners who acquired private property during apartheid may have no rights to keep that property, as "[n]o provision of this section may impede the state from taking legislative and other measures to achieve land, water and related reform, in order to redress the results of past racial discrimination."¹³³ The National Water Act thus institutes "compulsory licensing"¹³⁴ for water allocations; the government may forbid even previously approved allocations if they are not used in the public interest, and/or to fulfill basic human rights, and/or if the water "rights" were impermissibly granted in the first place, thus "redressing the results of past racial discrimination."¹³⁵

Such allocations may have been illegitimate not only because they were deeded under an illegal apartheid system, but because that system itself revoked the use of the Public Trust Doctrine, which should have existed in common law in South Africa's Roman-derived legal system. Implementing the Public Trust Doctrine may constrain not only what private property owners may do with their property, but it may also define whether or not it is really their property at all. Declaring that the Public Trust Doctrine will guide all water decision making puts property owners on notice that their "rights" may be ephemeral: they are usufruct, revocable rights that must incorporate the interests of others.¹³⁶ By declaring that in South Africa the Public Trust Doctrine should have always obtained, the current government can now say that those in power during apartheid abandoned their duties as public trustees, and government actions taken during those years which violated the Public Trust Doctrine were illegal. Coupling the Public Trust Doctrine with § 25 of the new constitution—elaborated in the water law and policy documents discussed below—sets the

130. DEP'T OF WATER AFFAIRS & FORESTRY, *supra* note 11.

131. Robyn Stein, *Water Law in a Democratic South Africa: A Country Case Study Examining the Introduction of a Public Rights System*, 83 TEX. L. REV. 2167, 2168–70 (2005).

132. S. AFR. CONST., 1996, § 25(4)(a).

133. *Id.* at § 25(8).

134. National Water Act 36 of 1998, ch. 4.1 (S. Afr.).

135. DEP'T OF WATER AFFAIRS & FORESTRY, *supra* note 11, at § 5.1.3.

136. Sax, *supra* note 121, at 162; Takacs, *supra* note 121, at 722, 768; Barton, *supra* note 120, at 40.

stage for the government to fulfill its public trust responsibilities by transferring currently held water “rights” to fulfill the statutorily delineated needs of the ecological Reserve, which in turn forms the basis for fulfilling the human right to water for present and future generations.

According to Van der Schyff & Viljoen, although the concept of the Public Trust Doctrine “entered the South African legal realm without much fanfare, it changed the foundation of the water law dispensation in totality.”¹³⁷ This statutory basis helps put foundations under a doctrine that some jurists find fuzzy, vague, and ill-conceived.¹³⁸ Van der Schyff & Viljoen state that “the concept of public trusteeship as it is embodied in the NWA describes a utopia” which, alas, confronts “an unfailing truth—in this broken reality we call ‘Now.’”¹³⁹ These scholars also note that whereas the Public Trust Doctrine exists in other legal systems as common law, in South Africa it has been statutorily introduced, which may limit its scope.¹⁴⁰ However, the 1998 National Environmental Management Act invokes the Public Trust in a more expansive way: “[t]he environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people’s common heritage.”¹⁴¹ Because “the environment” in its entirety rests in the public trust, when coupled with the § 24 broad rights to a healthy environment,¹⁴² the Public Trust Doctrine conveys a very powerful potential that has not yet been realized by jurists in South Africa, but is being used by those shaping the nation’s water policy in a visionary way, as we will see below.

III. THE RESERVE

The 1997 White Paper on Water Policy notes, “South Africa’s water law applied the rules of the well-watered colonizing countries of Europe to the arid and variable climate of South Africa.”¹⁴³ That is to say, the nation built its apartheid-era water strategies on not only a heinous social policy, but also on a

137. E. van der Schyff & G. Viljoen, *Water and the Public Trust Doctrine – a South African Perspective*, 4(2) TD: J. FOR TRANSDISCIPLINARY RESEARCH IN SOUTHERN AFRICA 339 (2008).

138. Takacs, *supra* note 121, at 733. For a recent take down from the “Darth Vader of the Public Trust Doctrine,” see James L. Huffman, *Why Liberating the Public Trust Doctrine Is Bad for the Public*, 45 LEWIS & CLARK ENVTL. L. 337, 338 (2015).

139. Schyff & Viljoen, *supra* note 139, at 353.

140. *Id.* at 346.

141. The National Environmental Management Act 107 of 1998, § 2, subsec. 4(o) (S. Afr.); *see also*, Michael C. Blumm & Rachel D. Guthrie, *Internationalizing the Public Trust Doctrine: Natural Law and Constitutional and Statutory Approaches to Fulfilling the Saxon Vision*, 45 U.C. DAVIS L. REV. 741, 791–92 (2012) (noting that additional statutes in South Africa extend the Public Trust Doctrine “well beyond tidal waters and shorelands to include sensitive ecosystems, wetlands, biological diversity and genetic resources, and mineral and petroleum resources.”).

142. S. AFR. CONST., 1996, § 24.

143. DEP’T OF WATER AFFAIRS & FORESTRY, *supra* note 11.

grievous ecological misrepresentation by the laws of humans which ignored the laws of nature, as so often occurs. To implement the new constitutional mandate that “[e]veryone has the right to have access to . . . sufficient food and water,”¹⁴⁴ authors of the foundational documents on South African water management opted instead to view the problem of water provision for present and future generations as essentially an environmental problem; they sought to situate the law of water in an appropriate ecological milieu.

The founding water documents introduced the necessity of an ecological “Reserve.” The White Paper is explicit: “After providing for the basic needs of citizens, the only other water that is provided as a right, is the Environmental Reserve—to protect the ecosystems that underpin our water resources, now and into the future.” One of the “Fundamental Principles for a new water law for South Africa” continues: “[t]he quantity, quality and reliability of water required to maintain the ecological functions on which humans depend shall be reserved so that the human use of water does not individually or cumulatively compromise the long term sustainability of aquatic and associated ecosystems.”¹⁴⁵ Another Principle puts the Reserve on equal footing with human water provision: “[t]he water required to meet the basic human needs. . . and the needs of the environment shall be identified as the Reserve and shall enjoy priority of use by right. The use of water for all other purposes shall be subject to authorization.”¹⁴⁶ Thus, the White Paper entwines human rights with ecological conservation by prioritizing both equally, as the newly revived Public Trust Doctrine would demand.

Furthermore, “[i]t is the duty of national Government, as part of its public trust function. . . to assess the needs of the Environmental Reserve and to make sure that this amount of water, of an appropriate quality, is set aside.”¹⁴⁷ And, resolutely: “[w]here the needs of the Environmental Reserve cannot be met because of existing developments, provision must be made for active intervention to protect the water resources.”¹⁴⁸ That is not merely a helpful suggestion. It clearly imposes concrete obligations on the public trustee. At first glance, this requires a precarious balancing act: provide basic water to all citizens, but do so in way that sustains the resource for present and future generations.¹⁴⁹ But lawmakers intertwined an expansive vision of how to maximize scarce hydrological resources for present and future generations with a profound view of what law must require of the public trustee charged with stewarding a resource.

144. S. AFR. CONST., 1996, § 27(1)(b).

145. DEP’T OF WATER AFFAIRS & FORESTRY, *supra* note 11, app. 1 principle 8.

146. *Id.* app. 1 principle 10.

147. *Id.* § 5.2.2.

148. *Id.*

149. Lee Godden, *Water Law Reform in Australia and South Africa: Sustainability, Efficiency and Social Justice*, 17 J. ENVTL. L. 181, 202 (2005).

The National Water Act, “widely considered to be one of the world’s most progressive water policies on paper,”¹⁵⁰ codified the White Paper’s vision, using the § 25 powers of the Constitution to abolish all private water allocations as a derogation of the public trust. All private water became public.¹⁵¹ The Act points out, “[t]he basic human needs Reserve provides for the essential needs of individuals served by the water resource in question and includes water for drinking, for food preparation and for personal hygiene. The ecological Reserve relates to the water required to protect the aquatic ecosystems of the water resource.”¹⁵² The management strategy must meet “the requirements of the Reserve,”¹⁵³ including “the ecological Reserve,” i.e. “the water required to protect the aquatic ecosystems of the water resource.”¹⁵⁴ South Africa is fortunate to have excellent mapping data that provides fine scale analysis of its ecological resources.¹⁵⁵ The Water Minister must use these resources to determine the Reserve for all areas of the country, and “[o]nce the Reserve is determined for a water resource, it is binding”¹⁵⁶ and carries legal responsibilities to sustain that Reserve. Water allocations must account for the needs of the Reserve and water use charges must consider costs of protecting the Reserve.¹⁵⁷ The Reserve, thus, is the legal and ecological cornerstone of South African water policy; the National Water Act recognizes that it can be no other way. As a result, the public trustee has the supporting legal structure as well as the tools to fulfill the directive to manage the Reserve for present and future needs of human and nonhuman communities, and is required to do so.¹⁵⁸

The National Water Act’s critics note that by committing to full cost-recovery and devolving power to local water managers who lack the financial knowledge and capacity to implement the vision, lawmakers undercut the equity goals they espouse.¹⁵⁹ Furthermore, despite the fact that experts assert that about a quarter of the available water must stay in waterways to support the Reserve and despite the fact that managers have been required to map the Reserve since

150. Francis, *supra* note 14, at 162.

151. National Water Act 36 of 1998, ch. 4 (S. Afr.).

152. *Id.* ch. 4, pt. 3, § 32.

153. *Id.* ch. 4, pt. 3, § 34.

154. *Id.* ch. 4, pt. 3, § 30.

155. John Dini & Jeffrey Manuel, INTERVIEW WITH DIRECTOR OF ECOLOGICAL INFRASTRUCTURE AT THE SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE AND DIRECTOR OF BIODIVERSITY INFORMATION AND PLANNING AT THE SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE (Cape Town, 2015).

156. National Water Act 36 of 1998, ch. 4, pt. 3, § 30 (S. Afr.).

157. *Id.* ch. 5, pt. 1, § 60, ch. 5, pt. 2, § 62, ch. 6, pt. 1, § 64, ch. 6, pt. 2, § 70.

158. To quote Kotzé & Bates, “the Reserve seeks to cement sustainability as the strategic foundation of South African water law and governance.” Kotzé & Bates, *supra* note 13, at 241.

159. Francis, *supra* note 14, at 164–69; *see also*, Local Government: Municipal Systems Act 32 of 2000 (S. Afr.) (further explains and devolves services, including free basic water provision, to local communities); SERI, TARGETING THE POOR? AN ANALYSIS OF FREE BASIC SERVICES (FBS) AND MUNICIPAL INDIGENT POLICIES IN SOUTH AFRICA (2013) (detailing the basic service provision and local governments), http://seri-sa.org/images/Targeting_the_Poor_Nov13.pdf.

1998, the Reserve is still not fully identified and thus not fully functional.¹⁶⁰ The government stewards have not fulfilled their statutory or public trust mandates: more than sixty percent of rivers and wetlands are ecologically “threatened,” many critically so.¹⁶¹ That is to say, the visionary aspirations of South African water law have yet to be fulfilled. And the judicial system has not necessarily helped South Africans realize their rights to water.

IV.

MAZIBUKO V. CITY OF JOHANNESBURG: GOING TO COURT TO ADJUDICATE THE RIGHT TO WATER

A. Introduction

Because South Africa is ahead of the curve on proclaiming, implementing, and enforcing the human right to water, what its government and courts do matters not just to its own citizens, but to communities beyond its borders. *Mazibuko v. City of Johannesburg* is the first case heard in the highest court of any nation that challenges the acceptability of how a government implements the human right to water. George McGraw notes that “[d]ue to the relative novelty of the water rights concept, however, standards set by national courts are also being adopted elsewhere. International tribunals increasingly borrow from this jurisprudence, and national courts have even begun to mimic each other.”¹⁶² McGraw notes “nowhere in the world is the right to water more clearly protected by legislation where the minimum core has been explicitly referenced in jurisprudence and case law than South Africa, which may serve as a model for international replication.”¹⁶³

Paul O’Connell argues that through a process of “judicial globalization,” courts everywhere are converging on a market-friendly, neoliberal interpretation of human rights provision, to the detriment of those whom human rights are meant to serve.¹⁶⁴ This is particularly worrisome for the right to water, where, as McGraw worries, “recent South African judgments will substantially weaken further enforcement of water rights, particularly regarding the minimum core. If this is the case, the practical universality of the standard may be compromised.”¹⁶⁵ The Constitutional Court in *Mazibuko* and in other South African ESC rights cases has largely deferred to the elected branches to determine the contours of the rights. I would argue that a jurisprudence policy of deferring to the elected branches, especially when those branches are not being particularly progressive, has great potential impacts beyond the tip of Africa.

160. DEP’T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20, at 843 (noting that this is the “most critical resource protection imperative that this be done.”)

161. *Id.* at 9.

162. McGraw, *supra* note 16, at 164.

163. McGraw, *supra* note 16, at 191.

164. O’Connell, *supra* note 16, at 538.

165. McGraw, *supra* note 16, at 165.

Unfortunately, the work of the South African Constitutional Court—the final arbiter for these decisions—has restricted access to socioeconomic rights protection, thus diminishing the transformative potential of the national Constitution.

B. *Mazibuko Background*

Phiri is a township in Soweto (the largest of Johannesburg’s suburbs with a population that is 98.5 percent Black) with many impoverished residents living in overcrowded conditions.¹⁶⁶ As is the case in many similar communities in South Africa, few households have in-home running water.¹⁶⁷ Johannesburg Water Ltd., the state-owned company responsible for delivering water to Phiri residents, was charged both with delivering a scarce resource to a growing population and with recouping its costs under a “full cost recovery” model.¹⁶⁸ Johannesburg Water claimed that whereas Sowetans consumed one-third to one-quarter of all water delivered by the company, only one percent of their revenue came from there; both because residents didn’t pay their bills and because antiquated infrastructure lead to leaking pipes and other water waste.¹⁶⁹ To conserve water and recover expenses, the company instituted a plan where citizens who wanted water piped onto their property would have to install a prepaid water meter. However, after twenty-five liters per person of free basic water flowed, if the residents had not paid fees their water would be turned off with no advance notice.¹⁷⁰

Phiri’s service provider, Johannesburg Water, fit the government’s model that responded to the World Bank’s loan conditions. Government ministers pronounced the valuable role private corporations could play in water provision.¹⁷¹ The government could not give away the water supply to foreign corporations, as this would blatantly violate the Public Trust Doctrine. However, some water providers outsourced operations to foreign multinationals. Johannesburg Water contracted operations of its antiquated water system to two multinational corporations, the United Kingdom’s Northumbrian Water and France’s Suez Lyonnaise, which implemented “demand side management,” i.e. making sure consumption was limited and books were balanced.¹⁷² While still obliged to provide twenty-five liters of free water per person, the companies

166. Magaziner, *supra* note 3, at 512–16.

167. Humby & Grandbois, *supra* note 22, at 526; Wesson, *supra* note 23, at 394.

168. Even though the State still ran the company, it was advised by international corporate actors, and cleaved to a corporate model where costs had to be recouped through charging customers. Daniels, *supra* note 57, at 63.

169. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) ¶ 12 (S. Afr.).

170. *Mazibuko v. City of Johannesburg* 2008 (4) All. SA 471 (Wit. Local Div.) ¶ 3 (S. Afr.); Wesson, *supra* note 23, at 395.

171. Daniels, *supra* note 57, at 66–67.

172. Bond & Dugard, *supra* note 44, at 5; Magaziner, *supra* note 3, at 524; Williams, *supra* note 110, at 229.

instituted “cost recovery” by installing prepaid water meters for any additional water and cut off supply when bills were unpaid.

Five Phiri residents sued the City of Johannesburg, along with Johannesburg Water and the Ministry of Water Affairs and Forestry. They alleged that the provision of six kiloliters per household per month—that is, roughly twenty-five liters per person per day or approximately two toilet flushes, according to Johannesburg Water—did not meet constitutional standards for the right to water, and asked that the amount be doubled. They further alleged that Johannesburg Water improperly calculated its formula of eight people per household, as the real figure of people per household was much higher.¹⁷³ Thus many residents, including the plaintiffs, were receiving even less than their guaranteed, but still insufficient, allotment of free basic water. Plaintiffs also alleged that the installation of prepaid water meters, which would shut off without notice if bills were not paid, was unconstitutional, violating provisions of the right to dignity (§ 7), equality (§ 9), and, of course, water (§ 27(b)).¹⁷⁴

The lead plaintiff, Lindiwe Mazibuko, lived as part of a twenty-member family group that fell behind on their water debt, and thus had their water disconnected. Co-plaintiffs complained, *inter alia*, of the difficulties imposed by restricted water when caring for patients with HIV/AIDS and other illnesses.¹⁷⁵ They also asserted that two of the co-plaintiff’s residents had died because disconnection by a prepaid water meter meant that no water was available when their home caught fire.¹⁷⁶

Plaintiffs also alleged discrimination: prepaid water meters were only installed in poorer communities, which were also primarily Black communities. Phiri was the first community to be subjected to the new policy.¹⁷⁷ In wealthier, predominantly White communities, prepaid water meters were not the norm, and where they were, Johannesburg Water gave citizens ample time to pay bills before disconnection; they offered no such latitude in Phiri.¹⁷⁸

C. *Mazibuko at the Trial Court: A Victory for the Right to Water*

Judge Moroa Tsoka’s High Court (i.e. the trial court) opinion¹⁷⁹ has been hailed as a landmark equity decision on the right to water.¹⁸⁰

Advocates in the case, and Judge Tsoka’s response to them, present a model for how to ground “progressive realization” of an ESC right in empirical

173. Daniels, *supra* note 57, at 87.

174. Magaziner, *supra* note 3, at 532.

175. Williams, *supra* note 110, at 213.

176. Danchin, *supra* note 89.

177. Danchin, *supra* note 89.

178. Bond & Dugard, *supra* note 44, at 10.

179. *Mazibuko v. City of Johannesburg* 2008 (4) All. SA 471 (Wit. Local Div.) (S. Afr).

180. Malcolm Langford & Anna Russell, *Case Commentary: ‘Global Precedent’ or ‘Reasonable No More?’: The Mazibuko Case*, 19 WATER L. 73 (2008).

studies of what must be provided to satisfy life's basic requirements. In *Grootboom* and *Treatment Action Campaign* as well as in *Mazibuko*, the amicus curiae unsuccessfully lobbied for the courts to recognize a minimum core whose specification would provide firmer content to the given right, and give less wiggle room to defer to any government claiming to be "progressing," however slowly, to realize the given right.¹⁸¹ As legal scholars have explained, the problem is that requiring "reasonable" progress to realize a right "provides an almost impermeable shield through which government's shortfalls are recast as successes and progress in the right direction."¹⁸² As noted above, for the human right to water, experts can provide empirical figures as to how much a human needs to survive and thrive.¹⁸³ A court *could* find facts to justify a minimum core, assess whether in fact a nation has the resources to provide this minimum core, and require and supervise a plan to acquire the resources and/or deliver that core.

Judge Tsoka reasoned that decisions in *Grootboom* and *Treatment Action Campaign* did not reject a minimum core for the right to water.¹⁸⁴ Citing U.S. water expert Peter Gleick, as well as UN and NGO sources, Judge Tsoka found ample evidence to support claims that fifty liters per person per day was required for a dignified life, and ordered Johannesburg Water to double the amount of water it provided to this amount, in line with international legal standards. Judge Tsoka noted that "[i]t is undeniable that the applicants need more water than the twenty-five liters per person per day and that the respondents are able, within their available resources, to meet this need."

Judge Tsoka held that installing prepaid meters (which turn off for non-payment without warning after distributing the basic allotment) in poor Black areas, and not wealthy White areas, constituted discrimination: it is "not only unreasonable, unfair and inequitable, it is also discriminatory solely on the basis of colour."¹⁸⁵ This finding has been called "both novel and significant in the global context."¹⁸⁶

The judge opined: "[t]o argue, as the respondents do, that the applicants will not be able to afford water on credit and therefore it is good" for applicants to go on prepayment meters is patronizing. That patronization sustained

181. Danchin, *supra* note 89. For an alternate, skeptical view of the minimum core (with additional references), see Margaux J. Hall & David C. Weiss, *Human Rights and Remedial Equilibration: Equilibrating Socio-Economic Rights*, 36 BROOK. J. INT'L L. 453, 469 (2011).

182. Hall & Weiss, *supra* note 181, at 480.

183. McGraw, *supra* note 16, at 199.

184. *Mazibuko v. City of Johannesburg* 2008 (4) All. SA 471 (Wit. Local Div.) at para. 133 (S. Afr.).

185. *Id.* para. 94. The UN Special Rapporteur on the Right to Water and Sanitation says that "authorities must ensure that the person faced with the disconnection must be given opportunities for consultation and for rectifying the situation" and "must be informed in advance, with reasonable notice, of the planned disconnection, recourse to legal remedies and legal assistance to obtain remedies." de Albuquerque, *supra* note 22, at 61.

186. Langford & Russell, *supra* note 180, at 77.

apartheid: its foundational basis was discrimination based on color and decisions taken on behalf of the majority of the people of the country as “*big brother felt it was good for them.*”¹⁸⁷ Even more assertively, Judge Tsoka ruled that because women and girls do the bulk of water collection, Johannesburg Water’s policies constitute gender discrimination.¹⁸⁸

Judge Tsoka forcefully argued that the Constitution demands that the government do more to fulfill the right to water—and to fulfill it without discrimination based upon class, race, or gender. Had the decision been upheld, it would have laid the groundwork for a more aggressive, proactive, holistic approach to providing water for all its citizens. It also would have served as a model for governments and courts everywhere on what governments must do to implement the right to water, and what courts should do to evaluate the government’s efforts.

D. *Mazibuko at the Constitutional Court*

As noted above, the South African Constitution provides a loophole on the right to water: progressive realization requires the state to “take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights.”¹⁸⁹ The Constitutional Court proved to be not all that progressive when discussing progressive realization in its internationally “seminal” decision on the right to water.¹⁹⁰ The *Mazibuko* court gave the government wide berth, asserting it had neither the wisdom nor the right to intervene, and found that the government had made an adequate case that it was making satisfactory progress in providing basic water to citizens of Soweto. Unlike in *Grootboom*, Johannesburg Water convinced the court it was taking reasonable steps to fulfill the rights of those most in need. Unlike in *Treatment Action Campaign*, the government was not acting irrationally and unreasonably according to its own stated policies and logic. The Court further noted that the City and its utility had doubled basic water provision to the poorest households. The court seemed particularly impressed that the government agency continuously examined and readjusted its policies; and, if such adjustment came as a result of the litigation, then that is one way to coerce a democratically accountable government to respond to citizen needs.¹⁹¹

187. *Mazibuko v. City of Johannesburg* 2008 (4) All. SA 471 (Wit. Local Div.) at para. 153 (S. Afr.).

188. *Id.* at para. 159. On appeal, an intermediate court subsequently lowered the daily requirement to 42 liters/person/day, but affirmed the unacceptability of the prepaid water meters, and gave the agency a two-year reprieve to meet the requirements. <http://www.saflii.org/za/cases/ZASCA/2009/20.html>.

189. S. AFR. CONST., 1996.

190. Rep. of the Human Rights Council on its Twenty-Seventh Session, ¶¶ 57-60, U.N. Doc. A/HRC/27/2 (Dec. 22, 2014).

191. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at para. 96 (S. Afr.). “It may well be, as the applicants urge, that the City’s comprehensive and persistent engagement has been spurred by the litigation in this case. If that is so, it is not something to deplore. If one of the key goals of the

Despite the UN Committee on Economic, Social and Cultural Rights' and other experts' admonitions that governments are responsible for providing some minimum core of ESC rights, the Constitutional Court reiterated conclusions from *Grootboom* and *Treatment Action Campaign*: the Court held that human rights guaranteed in the Constitution do not require a "minimum core" to comprise fulfillment.¹⁹² In rejecting a minimum core, the justices asserted that it would be "institutionally inappropriate for a court to determine precisely what the achievement of any particular social and economic right entails and what steps government should take to ensure the progressive realisation of the right."¹⁹³

Instead, to evaluate a plan, policy, or program, the South African Constitutional Court created a "reasonableness" standard to judge whether measures taken for both the general public and the most indigent in society are acceptable.¹⁹⁴ If a plan is "comprehensive, coherent, balanced, flexible, and feasible," if it has a functional legal and administrative structure, and it does not exclude large segments of society, then it is "reasonable."¹⁹⁵ For indigent citizens, special "fast track" provisions must be implemented, with less margin of error given to the government. In *Mazibuko*, the Court found that the government met these requirements.¹⁹⁶ The Court concluded that progressive realization "requires the state to take reasonable legislative and other measures progressively to achieve the right of access to sufficient water within available resources. It does not confer a claim for 'sufficient water' from the state immediately."¹⁹⁷ Using these criteria, the Court found that the policy of providing twenty-five liters per person per day was reasonable, and deferred to the legislature and executive in setting disbursement amounts.¹⁹⁸

International standards on the right to water demand that pricing of water services must be "based on the principle of equity, ensuring that these services, whether privately or publicly provided, are affordable for all, including socially disadvantaged groups. Equity demands that poorer households should not be disproportionately burdened with water expenses as compared to richer households."¹⁹⁹ To put it more bluntly, as Lucy Williams does, "in a water-

entrenchment of social and economic rights is to ensure that government is responsible and accountable to citizens through both the ballot box and litigation, then that goal will be served when a government respondent takes steps in response to litigation to ensure that the measures it adopts are reasonable, within the meaning of the Constitution. The litigation will in that event have attained at least some of what it sought to achieve."

192. *Id.* para. 53. For further commentary, see Magaziner, *supra* note 3, at 573; Thompson, *supra* note 91, at 77.

193. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at para. 60 (S. Afr.).

194. Francis, *supra* note 14, at 189.

195. *Id.* at 188–89.

196. *Id.*

197. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at para. 56 (S. Afr.).

198. *Id.* para. 9.

199. General Comment 15, *supra* note 34, ¶ 27.

deprived country, wealthier people should not be allowed to fill their swimming pools at relatively low cost while others die unnecessarily from AIDS-HIV because they do not have access to basic sanitation necessities such as enough water to wash themselves.”²⁰⁰ South African critics allege the poverty line is set much too low, the bureaucracy of registering as an indigent is cumbersome, demeaning, and poorly administered, and only a fraction (in Johannesburg, an estimate of ten percent²⁰¹) of the truly “indigent” end up registering.²⁰² Furthermore, White households in wealthy neighborhoods have unlimited water on credit²⁰³ and other water debtors, including government agencies (which, in fact, had the worst record for non-payment of water bills²⁰⁴), did not face the same prepaid restrictions. Nonetheless, the Court held that the policy did not discriminate against poor, Black households in Phiri; because all poor Black communities did not have the prepaid water meters, the policy was not discriminatory.²⁰⁵ Human rights lawyer Jackie Dugard has referred to this reasoning as “insane,” and “the most utterly outrageous and unacceptable of all the components of the judgment.”²⁰⁶

Furthermore, while a lower court in a separate case had found that disconnecting an existing water supply was a prima facie breach of the human right to water,²⁰⁷ here the Court argued that when the municipality shuts off the water after failure to pay, this does not result in disconnection—rather, the “water. . . is suspended until either the customer purchases further credit or the new month commences with a new monthly basic water supply whereupon the water supply recommences. It is better understood as a temporary suspension in supply, not a discontinuation.”²⁰⁸ To argue that shutting off a resident’s water when she cannot pay is not technically “disconnection,” seems to stretch its dictionary definition.²⁰⁹

200. Williams, *supra* note 110, at 246.

201. CENTRE ON HOUSING RIGHTS AND EVICTIONS, CASE STUDIES ON EFFORTS TO IMPLEMENT THE RIGHT TO WATER AND SANITATION IN URBAN AREAS: BRAZIL, KENYA, SRI LANKA, AND SOUTH AFRICA 37 (2008), <http://www.righttowater.info/wp-content/uploads/Case-Studies-on-Efforts-to-Implement-the-Right-to-Water-and-Sanitation-in-Urban-Areas-Brazil-Kenya-Sri-Lanka-and-South-Africa.pdf>.

202. SERI, *supra* note 161, at 44; Francis, *supra* note 14, at 189; Wesson, *supra* note 23, at 400; Williams, *supra* note 110, at 231.

203. Williams, *supra* note 110, at 235.

204. Bond & Dugard, *supra* note 44, at 11; Williams, *supra* note 110, at 245.

205. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at paras. 148–57 (S. Afr.).

206. McGraw, *supra* note 16, at 198. Dugard has expressed similar sentiments to me during an interview.

207. *Residents of Bon Vista Mansions v. S. Metro. Local Council* 2002 (6) BCLR 625 (W) (S. Afr.). For further discussion, see Daniels, *supra* note 57, at 87.

208. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at para. 119 (S. Afr.).

209. Recently, in cases where water was disconnected in poor people’s homes in Detroit, three UN experts weighed in that “when there is genuine inability to pay, human rights simply forbids disconnections.” *Detroit: Disconnecting Water From People Who Cannot Pay - —An Affront to Human Rights, Say UN Experts* (June 25, 2014), <http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=14777>.

Finding that “[c]ourts are ill-placed to make these assessments for both institutional and democratic reasons,” the justices carved out a narrow purview for themselves as they deferred to the elected branches.²¹⁰ The Court abdicated responsibility to define what the right itself might actually mean. The Court did not challenge the World Bank’s neoliberal approach that pressures the government towards full cost recovery, even if that policy ends up wasting water. As Professor Pierre De Vos put it: “[t]he judgment seems to be based on an assumption that people do not pay for water because they are bad or dishonest people: they want something for free when they need to (and can) pay for the water. It fails to take account of the fact that even if we all wanted to be good little capitalists like the government wants us to be, we cannot all afford the basic necessities that would sustain our lives.”²¹¹ The Court did not consider international or other evidentiary standards to constitute what counts as fulfillment of the right to water. It did not see the post-liberation nature of the Constitution as “transformational,” as scholars and activists have claimed, thus requiring special solicitude to promote justice and equity.²¹²

Some scholars have commented that the *Mazibuko* Constitutional Court’s prudential modesty was, indeed, prudent. Defenders of the ruling have argued that a court order mandating a minimum core, or more rapid “progressive realization,” would not meet the realities of water managers’ lack of capacity. A court order that cannot be fulfilled threatens the Court’s legitimacy.²¹³ Some have argued that a court-ordered increase of the minimum core would “drastically undermine the fragile consensus and faith in the constitutional system of human rights on which the South African democracy is based” because municipalities would lack the resources to fulfill the order.²¹⁴ They assume that the agencies are acting as diligently as they can—when, in fact, the agencies had other choices available to them. Are the justices obliged to consider these available choices? When the needs of the poorest of the poor to the most fundamental basis for life is at stake, and when there is clear statutory directive to do so, the courts have a responsibility to do more probing analysis than the justices engaged in here.

The Court said it could not order the government to have more resources than exists. But can it? While “the human rights framework does not demand the impossible,”²¹⁵ according to Special Rapporteur on the Right to Water Catarina de Albuquerque, it requires more than what the courts in *Mazibuko* were willing to consider. Safeguarding separation of powers in a fledgling democracy is a worthy goal—but one that is not absolute, especially when it comes into conflict with competing views of what a court is for, which includes helping all citizens

210. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at para. 61 (S. Afr.).

211. De Vos, *supra* note 23, at 3.

212. Bond & Dugard, *supra* note 44, at 4.

213. See, e.g., Humby & Grandbois, *supra* note 22, at 539–40.

214. *Id.* at 539; see Williams, *supra* note 110, at 215, 246.

215. de Albuquerque, *supra* note 33, ¶ 49.

acquire the fundamental basic resources that would allow them to participate meaningfully in that fledgling democracy.²¹⁶ The decision also comes at a cost of setting international legal standards that may result in ill health and death in South Africa and beyond. Scholars argue that “[t]he Constitutional Court’s subsequent repeal of [Judge Tsoka’s High Court] decision was so restrictive . . . that it has thrown into question the entire international consensus developed thus far.”²¹⁷

Even if the justices are aware of their role as legal trendsetters, it is not the Constitutional Court’s responsibility to adjudicate for the rest of the planet. Nonetheless, the Court stopped far short of what it could have done to realize the transformational potential of the South African Constitution and examine the facts underlying the government’s lack of progress in progressive realization.

E. Progressive Realization and the Right to Water Redux

The problem here is not simply that the Constitutional Court in *Mazibuko* made the wrong judgment, given the facts it was using and the law it applied to the facts. Rather, it is that all involved suffer from a myopic and misguided vision of what water is, what the right means, what is possible under “progressive realisation,” and what progress “within its available means” means. The law, quite simply, often gets the right to water wrong, and this paper seeks to right that wrong. Humby and Grandbois argue that “it is no use having beautifully-worded progressive laws on paper that are never enforced.”²¹⁸ That is a thesis of *this* paper, as well: the courts are not enforcing the law as written.

So what does “progressive realisation” “within its available means” mean when it comes to the right to water? Missing here, and missing in so much analysis (including the courts’ own analyses) of the right to water is consideration of ecological resources.

South African courts—even the more progressive and aggressive lower courts—fail to treat the right to water as an environmental problem. It is not only that the government could have made institutional arrangements so that local municipalities, to whom responsibility for water provision had been devolved, had sufficient financial and human resources to manage what they have been assigned,²¹⁹ or that the Constitutional Court derived baffling conclusions about equity and discrimination. It is not simply that Johannesburg Water could have pursued less restrictive, less discriminatory technological solutions. Poor infrastructure is all too common in South African water provision.²²⁰ For example, leaks caused much of the water loss in Phiri’s antiquated water

216. Williams, *supra* note 110, at 249.

217. McGraw, *supra* note 16, at 196.

218. Humby & Grandbois, *supra* note 22, at 540.

219. See, e.g., Bond & Dugard, *supra* note 44, at 3; Danchin, *supra* note 89; Humby & Grandbois, *supra* note 22, at 529.

220. S. AFR. HUMAN RIGHTS COMM’N, *supra* note 30, at 14.

system.²²¹ Thirty-seven percent (and possibly more) of drinking water is lost through leaks, drips, and other faults of aging infrastructure, and it is estimated that the equivalent of 600,000 Olympic-sized swimming pools are lost annually through waste.²²² The agency likewise could have installed conventional water meters that gave notice before disconnection (and thus time to pay owed fees). In fact, these meters were largely used elsewhere—particularly in wealthy (predominantly White) communities.²²³

Even compared to the “reasonableness” standard of review in its previous ESC rights jurisprudence,²²⁴ the *Mazibuko* court got it wrong. The government not only failed to take “reasonable” measures to provide simple technological fixes and “reasonable” measures to make equity fixes, it also failed to take “reasonable”—indeed, legally required—measures to protect the ecological infrastructure upon which water provision relies.

Nowhere in any of the three *Mazibuko* opinions does the word “Reserve” appear. It is not that the lawyers and judges lacked ecological imagination, or were relying on a somewhat squishy international consensus on what “progressive realization” means. As discussed above, the Reserve’s statutory prominence as a cornerstone of South African water law is unmistakable.

Nonetheless, several reasons may exist for why the Reserve and its purpose are absent in *Mazibuko*. First, plaintiffs may have seen it in their best interest not to remind the Court of the Reserve requirements. For example, plaintiffs may have believed that, at least in the short term, every liter kept in the Reserve was one less liter coming out of a standpipe in Phiri and elsewhere. Kotzé & Bates assert that “[h]ad the Constitutional Court answered the plea of Phiri’s poor in the way that most expected it would by confirming an increased quantity of free water per person, the effect might very well have been that socio-economic concerns outweighed ecological considerations. This arguably could have affected long-term sustainability, and would have ignored adherence to the dictates of the Reserve and the need to holistically view constitutional environmental and socio-economic entitlements.”²²⁵ Of course, that does not absolve the Court of not discussing the Reserve and how it is managed. Furthermore, the presumption is false—only through managing the Reserve responsibly according to public trust responsibilities could Johannesburg Water provide a minimum core, as Kotzé & Bates recognize: “[w]hat is important is that the cumulative objectives of these rights and statutes be fully realized in a holistic and balanced way during their implementation.”²²⁶

221. Wesson, *supra* note 23 at 394–95.

222. Fioramonti, *supra* note 80; SIP 19, *supra* note 13, at 12; CDP, *Rising Water Risks -: Businesses Facing a New Reality: CDP South Africa Water Report*, at 22 (2013).

223. See, e.g., Bond & Dugard, *supra* note 44, at 3; Danchin, *supra* note 89; Wesson, *supra* note 23, at 404 (2011).

224. See, e.g., Kotzé & Bates, *supra* note 13, at 268.

225. *Id.*

226. *Id.* at 269.

More profoundly, lawyers and judges in South Africa and beyond suffer from an ecological myopia that leads to misunderstanding about what it would mean to fulfill public trust responsibilities, to sustainably steward the Reserve, and thus be able to fulfill the human right to water. For many lawyers and judges, water provision is a problem of economic efficiency, technological capacity, and government bureaucracy. They do not see water provisioning as an environmental problem. Even with limited state resources, sound management of the ecological Reserve would result in more water availability in the short and long term, as framers of the nation's water laws envisioned. But we would first have to understand that managing grazing, clearing invasive weeds, creating riparian buffer zones, and implementing similar strategies upstream would result in more, and better quality, of water downstream. We simply do not think about or understand that water coming out of the tap springs from natural sources in distant places. We are separated from our ecological roots, and that "we" includes urban lawyers and judges.

This criticism, however, is not meant to scapegoat South African jurists as the only experts whose imaginations are cramped when it comes to the right to water. For example, the UN's Special Rapporteur on the human right to water, Catarina de Albuquerque, has issued numerous reports fulfilling her mandate. While her work on the equity requirements of state responsibility for the human right to water is extensive and detailed, she barely discusses the human right responsibilities to manage the ecological sources of water. Even the internationally delegated expert scarcely views the human right to water scarcity as an environmental problem.

In two reports on "good practices," the Special Rapporteur dedicated only a single paragraph to "Environmental sustainability." The paragraph noted only that "water quality and availability have to be ensured in a way that respects and supports the larger environment."²²⁷ The Rapporteur's "Compilation of good practices" contains nothing directly commenting on preserving water sources as a way to maximize and protect available water.²²⁸

The Special Rapporteur's report on "Common Violations of the Human Right to Water and Sanitation" dedicated two paragraphs to protecting water from damage, excessive exploitation, and contamination. She cited cases from France and the African Commission on Human and Peoples' Rights—focused on State responsibilities to "protect" through monitoring and preventing pollution.²²⁹ The report shows no evidence that "failure to protect water distribution" may include a failure to manage the ecological matrix that generates and protects the water in the first place. Her extensive Annex on "robust indicators" for violations of the human right to water says nothing about

227. Catarina de Albuquerque (Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation), *Progress Rep. on the Compilation of Good Practices*, U.N. Doc. A/HRC/15/31/Add.1 (July 1, 2010).

228. de Albuquerque, *supra* note 22.

229. de Albuquerque, *supra* note 33, at ¶¶ 29–30.

environmental or ecological management.²³⁰ The lack of attention to ecological infrastructure may reflect that many of her examples are drawn from self-reporting. Namely, if a national court or government fails to view careless stewardship of the ecological reserve as a human rights issue, she has nothing to report.

In noting that the “obligation to ensure minimum essential levels of water and sanitation is considered an immediate obligation,” the Special Rapporteur cited the Committee on Economic, Social and Cultural Rights as noting that States “must demonstrate that every effort has been made to use all resources that are at its disposition in an effort to satisfy, as a matter of priority, those minimum obligations.”²³¹ However, the requirement to steward the source of those resources is not mentioned. Even more perplexingly, in a report “[f]ocusing on sustainability in the realization of the human rights to water and sanitation,”²³² the Special Rapporteur spends only two paragraphs rehashing bromides on sustainable development without any specific application of how these generalities apply to state responsibility for the human right to water.²³³ Finally, in a nine-booklet “handbook” on “Realizing the human rights to water and sanitation” and a one hundred and fourteen page compendium of “best practices,” which represents a culmination of her work, the Special Rapporteur only tangentially mentions environmental sustainability. Thus, sustainability largely remains a neglected part of her mandate.²³⁴ These omissions demonstrate that South African jurists are not the only legal experts missing the environmental components of the fundamental human right to water.

Further damage comes from unlinking economy to ecology. If we subscribe to the logic of full cost recovery, then gluttonous users should be charged rapacious prices to discourage overconsumption and preserve the Reserve. Bond & Dugard consider “imposing a luxury consumption charge” as part of a program of “decommodifying” water, both to discourage consumption and to subsidize those who cannot afford a dignified amount of free basic water.²³⁵ But full cost recovery means that the utility has perverse incentives to encourage more water use from paying customers. And indeed, Johannesburg Water was charging relatively low rates for the highest (“luxury”) use group, and those rates were flat for all people using over fifty kiloliters per month.²³⁶ Regrettably,

230. *Id.* at 26–28.

231. *Id.* ¶¶ 29, 49 (citing Committee on Economic, Social and Cultural Rights, General Comment No. 3, para. 10).

232. Catarina de Albuquerque (Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation), *Rep. of the Special Rapporteur*, U.N. Doc. A/HRC/24/44, summary (July 11, 2013).

233. *Id.* at ¶¶ 18–19.

234. *See* DE ALBUQUERQUE, *supra* note 5.

235. *See* Bond & Dugard, *supra* note 44, at 4–5 (2008); Danchin, *supra* note 89.

236. *See, e.g.*, Bond & Dugard, *supra* note 44, at 6; Williams, *supra* note 110, at 245.

the amalgamation of these factors led to the sacrifice of a potential source of both revenue and water conservation.²³⁷

Thus, this Paper contends that advocates and judges in South Africa and elsewhere are taking a myopic view of which facts matter in assessing “reasonable” progressive realization of the right to water. It is not simply that they are failing to look at basic technological solutions (fixing leaks) or failing to assess the facts of equity (installing prepaid water meters in Black areas only indicates that something is amiss). Much more fundamental and grave is that they are failing to consider facts about proper trusteeship of ecological infrastructure.

Yet South African jurists *are* capable of seeing that environmental needs and human needs are interrelated, and that sustainable development means sustaining the resource base that undergirds all human communities. Indeed, in a remarkable 2007 discussion in *Fuel Retailers Association of Southern Africa*,²³⁸ the Constitutional Court engaged in an extensive discussion of international law, thereby underpinning the right to ecologically sustainable development. The Court acknowledged that “[i]t is in the light of these developments in the international law of environment and sustainable development that the concept of sustainable development must be construed and understood in our law.”²³⁹ When considering the Constitution’s guaranteed right to a healthy environment, the Court noted: “. . . The need for development must now be determined by its impact on the environment, sustainable development and social and economic interests. The duty of environmental authorities is to integrate these factors into decision-making and make decisions that are informed by these considerations.”²⁴⁰

However, such a lofty conclusion would not subsequently translate into a proactive understanding of what it would mean to enforce this legal logic when adjudicating implementation of the human right to water. The *Fuel Retailers* Court concluded that “[o]ur Constitution does not sanction a state of normative anarchy which may arise where potentially conflicting principles are juxtaposed. It requires those who enforce and implement the Constitution to find a balance between potentially conflicting principles.”²⁴¹ And in *Mazibuko*, no conflicting principles needed be juxtaposed. It need not have come down to a conflict (or even “normative anarchy”) between ordering more water for human life and dignity, versus threatening a fragile democracy. Progressive realization of the right to water to the maximum of available resources could and should have

237. See, e.g., Bond & Dugard, *supra* note 44, at 6; Williams, *supra* note 110, at 245.

238. *Fuel Retailers Ass’n of S. Afr. v. Director-General Env’tl. Mgmt.* 2007 (10) BCLR 1059 (CC) at para. 79 (S. Afr.) (Sachs, J., dissenting). The case, ironically, was brought by existing fuel dealers who wanted to prevent another service station from opening nearby.

239. *Id.* ¶ 56.

240. *Id.* ¶ 79.

241. *Id.* ¶ 93.

included the very environmental considerations the court acknowledged in *Fuel Retailers*.

Given that water is the basis for all life, this myopia remains all the more startling. Many actors seem to suffer from tunnel vision, along with a lack of creativity and fundamental ecological literacy when thinking about what it would mean to realize the right to water. South Africa is a developing country with limited means and overwhelming societal demands; its glaring social, racially coded inequality and devastating history provides the infrastructural inequality context for all discussions of the right to water and all other rights. Courts there should be taking a much harder look at all the facts underlying progressive realization of the right to water (and other ESC rights).

Given this context, an entity fails the “reasonable test” for progressive realization not only if it disproportionately penalizes the most indigent members of society (as Johannesburg Water seemed to do in *Mazibuko*), but also if it fails to heed its legally mandated public trust responsibilities to manage the Reserve. The South African government and its water providers violated the Public Trust Doctrine in various ways in the *Mazibuko* case. Or it would be so if the courts had even considered the possibility. The Public Trust Doctrine—which, by law, governs water management in South Africa—means the government is charged with sustaining the resource’s ecological source for present and future generations of humans and nonhumans. The White Paper and the National Water Act understand this right; the courts get it wrong. None of the three *Mazibuko* courts mention the Public Trust Doctrine, the guiding principle by which water must be managed. None mention the Reserve, the preservation of which takes equal precedence in the National Water Law with the need to provide basic water to all citizens.

If, according to § 27(2) of the Constitution, the government must “take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of” the right to water, then we must interrogate what the phrase “available resources” actually entails.

First, the government is not working “within its available resources” to progressively realize the human right to water when it fails to look at equity solutions, particularly those tied to the Public Trust. Looking at “available resources” requires considering a variety of facts. For one, irrigated agriculture uses sixty percent of available water.²⁴² Second, ninety-five percent of irrigated farming is used by White-owned, large-scale industrial farmers,²⁴³ yet irrigated farming constitutes only three percent of the nation’s GDP and creates only seven percent of the nation’s jobs.²⁴⁴ On the other hand, three percent of farms

242. DEP’T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20, at iii.

243. Daniels, *supra* note 57, at 64.

244. DEP’T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20, at 8; Daniels, *supra* note 57, at 64.

produce ninety-five percent of the country's formal food sector.²⁴⁵ More water could be available by prioritizing water for the truly productive farms and diverting water from unproductive uses. Furthermore, South Africa wastes thirty to forty percent of its food; more resources, including water, would be made "available" if the nation reduced this spectacular waste.²⁴⁶ In the food sector, lack of equity meets lack of ecology in a particularly egregious way—one that shows a clear lapse in government public trust responsibilities and failure to respect the government's own belief in water as an economic commodity.²⁴⁷

Moreover, the government provides most of the water for irrigation at no cost.²⁴⁸ As such, this industry uses nearly another twenty percent of South Africa's available water.²⁴⁹ Johannesburg Water had chosen a flat rate for the industrial sector as well, thus discouraging conservation and decreasing cross subsidies for poor users. Even with the World Bank-imposed logic of full cost recovery, managers could be charging much more to the sixty thousand or so business purchasers of water,²⁵⁰ and/or to water gluttons who can either afford to pay or who would be compelled to conserve when the price is too high, thereby increasing the quantity of and access to available water resources to the most indigent.

But water managers cannot simply mismanage the resource and respond that the remaining water is all the water that is "available." By squandering the resource, including allowing it to be arrogated to private concerns—despite the Constitution and prior statutes' clear authority mandating otherwise—and failing to manage the Reserve in violation of clear requirements, the government violates its public trust responsibilities. In so doing, agencies fail to effectively manage their resources, thereby violating § 27(b) and international standards on the right to water.

In the long run, arguments over the proper standards for fulfilling the right to water—e.g., minimum core test vs. reasonableness test—become irrelevant if the government fails to take seriously its public trust responsibilities in the first place. A State cannot have progressive realization to the maximum of available resources if it is minimizing such resources. It cannot provide a minimum core—or the core is going to be quite minimal—if it is not managing the Reserve. It becomes evident that in more recent documents, the government concedes that it has failed to sustainably manage the Reserve, as it is statutorily required to do. Despite this awareness, the government instead chooses to

245. WWF-SA, *supra* note 81, at 5.

246. *See generally*, David Oliveira, *Food waste costs SA R61.5-billion a year*, ENGINEERING NEWS, <http://www.engineeringnews.co.za/article/food-waste-costs-sa-r615-billion-a-year-2013-08-23>.

247. WWF-SA, *supra* note 81, at 4.

248. Michael Kidd, *Poisoning the Right to Water in South Africa: What Can the Law Do?*, 1 INT'L J. RURAL L. & POL'Y, at 8 (Spec. Ed. 2011).

249. *See, e.g.*, Williams, *supra* note 110, at 245.

250. Interview with Mark Botha, Lecturer, University of the Western Capie, in Scarborough, South Africa (Feb. 17, 2015).

continue dissipating the resource it is legally obliged to steward. The courts in *Mazibuko* certainly had it within their legal purview to look at how government agencies were fulfilling their public trust responsibilities by stewarding or failing to steward the Reserve—the source of all water.

It is frustrating that South Africa has all the ingredients to get the right to water correct. It possesses the ability to fulfill progressive realization much more progressively—“progressively” as in making more progress in fulfilling the right, doing it in a visionary and equitable way, and leading the way to this fundamental right internationally. It also has a transformative Constitution with clear guarantees on the right to water and other environmental rights, the right history to compel equity, the appropriate statutes implementing the right, and the excellent mapping and technological expertise to prioritize protections.

And, despite the disappointing ruling in *Mazibuko*, South Africa is refining its legal tools for progressive realization of the right to water, as discussed in the next Section.

V.

GETTING THE RIGHT TO WATER AGAIN

Litigation may not be the most effective way to realize the human right to water in South Africa.²⁵¹ Despite the Constitutional Court’s reluctance to enforce the right to water more aggressively, South Africa has presented a deeply equitable vision for how to implement the human right to water. In four documents spanning seventeen years, lawmakers and policymakers have presented a blueprint for how government can and must fulfill its public trust responsibilities to protect the human right to water by protecting the ecological source that nourishes that right.

South Africa leads the way in requiring the right to water and in explaining that this mandate to fulfill the right to water for humans means maintaining and stewarding a “Reserve” for present and future generations of humans and nonhumans. South Africa’s Minister of Water and Environmental Affairs estimates that ecosystem services provide around seven percent of the nation’s GDP each year.²⁵² And a recent study estimates that nature provides humans with \$125 trillion USD worth of services annually.²⁵³

It has taken awhile, however, for South Africa to lead the way in translating aspirations into action. The nation has comprehensive data on the perilous state of its ecological health. According to the South African Biodiversity Institute (SANBI), fifty-seven percent of river ecosystems and sixty-five percent of

251. Francis, *supra* note 14, at 153.

252. WWF-SA, *supra* note 81, at 4 (citing E. Molewa, Minister of Water & Environmental Affairs at the 7th Pan-African Access and Benefit Sharing Workshop in Phalaborwa, Limpopo, South Africa, February 2013).

253. See Robert Costanza et al., *Changes in the Global Value of Ecosystem Services*, 26 GLOBAL ENVTL. CHANGE 152 (2014).

wetland ecosystems are ecologically threatened, while eighty-four percent of large rivers are endangered or vulnerable.²⁵⁴ By the government's own assessment, its "water resources are facing ever increasing pressures from climate change, population growth, over utilization of the water resources, poor land-use practices and subsequent pollution."²⁵⁵ Acid mine drainage has caused terrible pollution in many, if not most, of the nation's waterways.²⁵⁶

Given this history of the dangerous state of its ecological sustainability, water providers should not be constrained by a narrow view of what "available resources" entail and how they can be maximized. Fulfilling the human right to water requires sustaining the ecological matrix that is the source of that water, and thus maximizing "available resources." It means investing in ecological infrastructure by protecting the sources of water and prioritizing development away from fragile riparian zones.

However, investment in ecological infrastructure can be highly cost-effective if we account for the value of improving or maintaining those ecosystem services, including water quality and quantity.²⁵⁷ In 2014, over \$9 billion USD was invested worldwide in ecological infrastructure to protect clean water, providing water to over seven million households and protecting an area of land larger than India.²⁵⁸ U.S. studies suggest that every dollar spent protecting ecological infrastructure saves between \$7.50 and \$200 in water treatment costs—and that does not even include the costs of repairing or dredging dams, or importing water from elsewhere.²⁵⁹ One study of a wetland rehabilitated by South Africa's Working for Water program found that communities neighboring the program's sites earned more than double returns on economic investment.²⁶⁰

But we take these free ecosystem services for granted—until the ecosystem no longer provides them for free.²⁶¹ Well-maintained watersheds and wetlands improve water quality and quantity by acting as natural filters to purify water,

254. SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE (SANBI), NATIONAL BIODIVERSITY ASSESSMENT (2011); see also A. Driver, et al., *National Spatial Biodiversity Assessment 2005: Priorities for Biodiversity Conservation in South Africa*, SANBI BIODIVERSITY SERIES 6 (2005).

255. DEP'T. OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20, at 37.

256. See, e.g., Loretta Feris, *The Public Trust Doctrine and Liability for Historic Water Pollution in South Africa*, 8/1 L. ENV'T & DEV. J. 1, 3–4 (2012); L. Feris & L.J. Kotze, *The Regulation of Acid Mine Drainage in South Africa: Law and Governance Perspectives*, 17 POTCHEFSTROOM ELECTRONIC L. J. 2105 (2014).

257. See SANBI, *supra* note 113, at 2.

258. See, e.g., Genevieve Bennett & Nathaniel Carroll, *Gaining Depth: State of Watershed Investment 2014: Executive Summary*, FOREST TRENDS (Dec. 2014), http://www.forest-trends.org/dir/sowi_2014/.

259. SIP 19, *supra* note 13, at 33.

260. B.W. van Wilgen & W.J. De Lange, *The Costs and Benefits of Biological Control of Invasive Alien Plants in South Africa*, AFRICAN ENTOMOLOGY (2010).

261. SIP 19, *supra* note 13, at 14.

regulating flows in both wet seasons (including flood buffering) and dry seasons, preventing erosion and thus reducing sediment load, and enhancing biodiversity both in streams and through careful protection of buffers, in adjacent lands.²⁶² This sometimes goes under the name of “restoring natural capital,” or essentially “any activity that integrates investment in and replenishment of natural capital stocks to improve the flows of ecosystem goods and services, while enhancing all aspects of human wellbeing.”²⁶³

Additionally, while traditional “built” infrastructure loses its function and value over time, ecological infrastructure accrues value over the long run as restored areas mature.²⁶⁴ Perhaps managers in South Africa and elsewhere are learning the hard way that technological infrastructure fixes are only a part of the solution for providing basic water to a growing population, and that technological solutions without ecological solutions will fail. In response, South Africa is now returning to the natural basis for all water provision—as its laws requires—and is proceeding accordingly.

For example, the Department of Environmental Affairs’ “Working for Water” program employs people to clear invasive weeds from more than six million acres in and around the nation’s waterways.²⁶⁵ Its managers recognize that these plants “pose a direct threat not only to South Africa’s biological diversity, but also to water security, the ecological functioning of natural systems and the productive use of land.”²⁶⁶ Invasive plants suck up more water than what native South African plants would do in the same environment; these invasive plants consume about seven percent of total annual runoff and could eventually consume more than half if left unmanaged.²⁶⁷ Moreover, when invasive plants slow stream velocity, surface evaporation increases—all of which decreases the amount of water available for human and nonhuman uses.²⁶⁸ Furthermore, they crowd out South Africa’s unique, endemic flora and fauna, reducing native biodiversity.²⁶⁹ “Working for Water” also creates jobs,

262. *Id.* at 14; UNITED NATIONS ENVIRONMENT PROGRAMME, GREEN INFRASTRUCTURE: GUIDE FOR WATER MANAGEMENT 5, 14–16 (2014); Barton H. Thompson, Jr., *Markets for Nature*, 25 WM. & MARY ENVTL. L. & POL’Y REV. 261, 295 (2000).

263. Carsten NeBhover et al., *The Economics of Ecosystems and Biodiversity for National and International Policy Makers 5* in RESTORING NATURAL CAPITAL: BUSINESS AND PRACTICE. (J. Aronson et al. eds., 2007) (citing *Restoring natural capital: definitions and rationale*, J. Aronson, et al., 2007); *see also Who We Are*, NATURAL CAPITAL PROJECT, <http://www.naturalcapitalproject.org/what-is-natural-capital/> (last visited July 27, 2016).

264. GREEN INFRASTRUCTURE: GUIDE FOR WATER MANAGEMENT, *supra* note 261, at 66.

265. SIP 19, *supra* note 13, at 55.

266. *Working for Water*, REPUBLIC OF S. AFR. DEP’T OF WATER AFFAIRS, <https://www.dwa.gov.za/wfw/> (last visited July 27, 2016).

267. *See* SANBI, *supra* note 113, at 5.

268. *Working for Water: A South African Sustainability Case*, UNITED NATIONS ENVIRONMENT PROGRAMME.

http://www.unep.org/training/programmes/Instructor%20Version/Part_3/readings/WfW_case.pdf (last visited July 31, 2016).

269. SIP 19, *supra* note 13, at 30.

employing tens of thousands of people—especially for women, youth, and disabled people²⁷⁰ in a nation where chronic unemployment reinforces poverty and threatens the stability of a fragile democracy. One study suggests that if twenty percent of the \$192 billion USD that developing countries invest in traditional infrastructure were replaced by green infrastructure, it would create more than 100 million additional jobs.²⁷¹

According to the National Water Resources Strategy, maintaining water's ecological infrastructure mitigates floods, regulates and enhances stream flow, purifies water, decreases erosion and sedimentation of water, and recharges groundwater—all of which will become more vital as the population grows and climate change intensifies both heat and extreme rainfall events.²⁷² These pressures matter to eThekweni Water & Sanitation, Durban's municipal water management agency, which has garnered international recognition as “one of the most progressive water and sanitation utilities in the world.”²⁷³ The Agency's Director has exhausted engineering solutions to fulfill the demand for scarce water resources.²⁷⁴ In addition to various technological fixes,²⁷⁵ eThekweni is charting new ground in managing ecological infrastructure to provide water to its customers. For example, its uMngeni River catchment project is “aligning diverse resources towards a common vision of investing in ecological infrastructure.”²⁷⁶ Faced with increasing demand and decreasing supply, the chief water manager now knows that “[t]here are limits to what we can build, but nature builds things that naturally rehabilitate. We need to give nature a chance to work for us.”²⁷⁷

The agency is clearing invasive weeds, restoring wetlands and riparian buffer zones, improving grazing practices to decrease water quality impacts, and improving the monitoring of agricultural and industrial pollution.²⁷⁸ In so doing, eThekweni is fulfilling its public trust responsibilities by managing an

270. GREEN INFRASTRUCTURE: GUIDE FOR WATER MANAGEMENT, *supra* note 261.

271. UNITED NATIONS ENVIRONMENT PROGRAMME, GLOBAL GREEN NEW DEAL: POLICY BRIEF 24 (Mar. 2009).

272. DEP'T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20, at 37–38.

273. “Most Progressive Water Utility in Africa” Wins 2014 Stockholm Industry Water Award, CNW (May 28, 2014), <http://www.newswire.ca/en/story/1362337/-most-progressive-water-utility-in-africa-wins-2014-stockholm-industry-water-award>.

274. See Katheryn Kasavel, *Umgeni Ecological Infrastructure Partnership Launched*, URBANEARTH (Dec. 2, 2013), <http://urbanearth.co.za/articles/umgeni-ecological-infrastructure-partnership-launched>; *Investment in Ecological Infrastructure for Durban's Water*, GRASSLANDS (Feb. 11, 2013), <http://www.grasslands.org.za/news/entry/-investment-in-ecological-infrastructure-for-durbans-water>.

275. CNW, *supra* note 272.

276. *Investment in Ecological Infrastructure for Durban's Water*, *supra* note 273.

277. *SANBI Launches Ecological Infrastructure Partnership in Durban*, GRASSLANDS (Nov. 28, 2013), <http://www.grasslands.org.za/news/entry/sanbi-launches-ecological-infrastructure-partnership-in-durban>.

278. *Investment in Ecological Infrastructure for Durban's Water*, *supra* note 273.

environmental problem with an environmental response. Furthermore, the South African government has named the headwaters of the uMngeni River (which supplies most of the water supply to Durban, an area that generates more than ten percent of South Africa's GDP, as well as the surrounding regions) as a Ramsar Convention Wetlands of International Importance.²⁷⁹ According to the World Wide Fund for Nature (WWF), giving Ramsar-designated protection "is not only critical for our natural biodiversity heritage . . . but also as a crucial water source for the people of KwaZulu-Natal and for the province's economy."²⁸⁰

VI.

"THE INDIVISIBILITY OF WATER": SOUTH AFRICA BACK ON THE DEEPLY EQUITABLE PATH

Two recent documents show that eThekweni's work is not an isolated pilot project, but rather points to South Africa's resurgence as an international leader in progressive implementation of the human right to water. South Africa's 2013 revised National Water Resources Strategy (NWRS2)²⁸¹ and the 2014 Strategic Integrated Project (SIP) 19: Infrastructure for Water Security,²⁸² offer expansive visions of how water managers must fulfill their public trust responsibilities to steward the Reserve for present and future generations.

The 2013 NWRS2—a legally binding document that implements the National Water Act²⁸³—visualizes that the way to equitable water provision is through sustainability, and the way to sustainability is through equitable water provision rooted in enlightened management of the ecological resource.

One could hardly get a clearer expression of marrying equity to ecology than the following description:

Water is a precious resource in South Africa and is fundamental to our quality of life. An adequate water supply of suitable quantity and quality makes a major contribution to economic and social development. To achieve this, healthy water ecosystems are imperative to sustain the water resource, which, in turn, provide the goods and services on which communities depend. This indivisibility of water is a cornerstone of the National Water Policy, to the extent that water ecosystems are not seen as users of water in competition with other users, but as the base from which the resource is derived, without which, growth and development cannot be sustainable.²⁸⁴

The NWRS2 takes a holistic view that epitomizes the ideal principles of a deeply equitable approach to water management: "[t]he perspective of equity in

279. *Source of the uMngeni River declared South Africa's 21st wetland of international importance*, WWF-SA (Apr. 18, 2013), <http://www.wwf.org.za/?7880/uMngeni-River-Ramsar-Site/>.

280. *Id.*

281. DEP'T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20.

282. SIP 19, *supra* note 13.

283. DEP'T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20, at 1.

284. *Id.* at 37.

the Strategy is three dimensional and includes equity in access to water services, equity in access to water resources and equity in access to the benefits from water resource use through economic, social and environmental development and management.”²⁸⁵

This focus on equity has been lacking in recent years. As the NWRS2 notes, “since the promulgation and implementation of the NWA, one principle that has not received the desired attention is equity, resulting in the perpetuation of inequitable water allocation.”²⁸⁶ In particular, the NWRS2 notes shortcomings in reallocating water to those to whom it has been historically denied.²⁸⁷ To remedy these deficiencies, the Strategy focuses on “the redress of race and gender water allocations for productive economic uses,”²⁸⁸ including priority water allocations for Black and women users.²⁸⁹ Such programs are to be implemented with the knowledge that “participation of the poor is critical in eliminating poverty and ensuring the political legitimacy of policies and strategies.”²⁹⁰ This marries South Africa’s constitutionally prescribed rights to democratic participation²⁹¹ with the emerging international customary norms of Environmental Democracy, along with the pragmatics that equity can only be accomplished with the wisdom and legitimate buy-in from the most severely affected parties.²⁹² While not exactly a bottom-up democratic movement to re-appropriate the commons, as visualized by some scholars and realized in some places, it is nonetheless a step in the right direction towards implementing environmental human rights in a democratic and pragmatic manner.²⁹³ Observing the Public Trust means, in part, reallocating water to citizens to whom the resource has been unfairly denied and prioritizing their participation in managing and defending the trust resource.

The first priority of the NWRS2 proclaims: “[i]n line with the Constitution and the National Water Act, the highest allocation priority is afforded to water for purposes of the Reserve.”²⁹⁴ The rationale marries human rights to the ecological basis needed to respect, protect, and fulfill those rights:

The first objective is to ensure that sufficient quantities of raw water are available to provide for the basic water needs of people. In terms of current policy, a

285. *Id.* at iii.

286. *Id.* at 45.

287. *Id.*

288. *Id.*

289. *Id.*

290. *Id.* at 47.

291. See S. AFR. CONST., 1996, § 38 (for broad standing rights including § 38(d) specifying “anyone acting in the public interest.”).

292. Takacs, *supra* note 128, at 71.

293. For an example, see Ugo Mattei, *Institutionalizing the Commons: An Italian Primer*, COMMONSBLOG <https://commonsblog.files.wordpress.com/2007/10/mattei-italian-commons-chapter-short.pdf> (last visited July 31, 2016).

294. DEP’T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20, at 47.

quantity of 25 litres per person per day has been incorporated into the Reserve determination. Even though this is the minimum volume, this will be progressively increased where appropriate. The second objective is ensuring sufficient water of an appropriate quality to sustain healthy ecosystems.²⁹⁵

The NWRS2 notes that while “water is allocated to the environment as a priority and for free by way of the environmental Reserve . . . [t]he environment cannot pay for the water it uses.”²⁹⁶ The Strategy proclaims that “[t]he pricing of water . . . needs to better reflect its value.”²⁹⁷ Thus for “ecological sustainability” the NWRS2 recommends:

[t]he water needs for the effective functioning of aquatic ecosystems must be protected. The management activities required to ensure the provision of sufficient water for the ecological reserve must be paid for by all registered and billable users. To promote the preservation of resource quality, the polluter pays principle is adopted.²⁹⁸

The philosophy espoused in the NWRS2 makes the “full” in full cost recovery much fuller. The Strategy does not explain what it means by the “polluter pays principle.” But as adapted from international law, it would mean that anyone despoiling the Reserve must pay for its maintenance and recovery. This principle is not merely an expression of the neoliberal paternalistic ethic that if we do not pay for water we will waste it, and thus governments should not give it away for free. Instead, it is a deeply equitable approach to “full” cost recovery. It recognizes that those who can afford to pay must pay for the basic needs of the poor, whose individual and community health will improve with improved water provision. And, those who can afford to pay must pay for those entities that cannot, entities whose provision of ecosystem services we normally regard as free of cost. As a result, ecosystem health (and thus, in turn, human community health) will improve.

The 1998 National Water Act prescribes the protection of the water resources through resource-directed measures and the classification of water resources.²⁹⁹ Fifteen years later, the NWRS2 frankly admits that “[n]otwithstanding this legislative requirement, there has been a demonstrable drop in aquatic ecosystem health across the country and increased stress on water resources, leaving little buffering capacity for any coming changes and increasing water demand.”³⁰⁰ The NWRS2 notes that while the country has identified and mapped National Freshwater Ecosystem Priority Areas,³⁰¹ it has not sufficiently protected those areas by curtailing or improving the practices of activities that are known to harm them, such as mining, or determined which of

295. *Id.*

296. *Id.* at 86.

297. *Id.* at 44.

298. *Id.* at 88.

299. See National Water Act 36 of 1998 (S. Afr.).

300. DEP'T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20, at 37.

301. *Id.*

those specific areas constitutes the legally mandated Reserve.³⁰² The crux of this philosophy is that these areas, which comprise eight percent of the land surface and contribute fifty percent of the water supply, “form the foundational ecological infrastructure on which a great deal of built infrastructure for water services depends. They are thus strategic national assets that are vital for water security and need to be acknowledged as such at the highest level across all sectors.”³⁰³

The NWRS2 stresses that the national stewards should protect riparian buffer zones and all critical areas where groundwater is recharged:

Buffers and healthy riparian zones around rivers and wetlands are known to stabilise banks, trap sediments and filter out pollutants, thereby sustaining water quality and protecting aquatic habitats and associated biota. Rehabilitating and maintaining intact buffers and groundwater recharge areas is a high-priority intervention for improving water security . . . [and] it is prudent to implement a statutory minimum setback line to mitigate impacts on, and ensure the persistence of critical water-related ecological infrastructure.”³⁰⁴

The Plan calls for further restoration of these strategic areas, building on prior successful interventions, including the “Working for Water” program.³⁰⁵ To preserve and restore these crucial areas would mean fulfilling the Public Trust Doctrine’s legal mandate to manage the Reserve for the constitutionally protected human right to water.

A. *Strategic Integrated Project 19: Ecological Infrastructure for Water Security*

Government agencies have prepared and approved an eighteen-part Strategic Integrated Plan (SIP) “that intends to transform our economic landscape while simultaneously creating significant numbers of new jobs, and to strengthen the delivery of basic services.”³⁰⁶ An additional plan was recently submitted: “Ecological Infrastructure for Water Security,” or SIP 19.³⁰⁷ Coordinated to fulfill the priorities of the NWRS2 (discussed above),³⁰⁸ SIP 19 is “aimed at improving South Africa’s water resources and other environmental goods and services through the conservation, protection, restoration, rehabilitation and/or maintenance of key ecological infrastructure.”³⁰⁹ Presenting three hundred and sixty specific activities costing over \$165 million

302. *Id.* at 9.

303. *Id.* at 42.

304. *Id.* at 38.

305. *Id.* at 44.

306. PRESIDENTIAL INFRASTRUCTURE COORDINATING COMMISSION, A SUMMARY OF THE SOUTH AFRICAN NATIONAL INFRASTRUCTURE PLAN 6 (2012).

307. SIP 19, *supra* note 13; *see also* DEP’T OF WATER AFFAIRS, NATIONAL WATER RESOURCE STRATEGY, *supra* note 20.

308. SIP 19, *supra* note 13, at 12.

309. *Id.* at 2.

USD,³¹⁰ SIP 19 complements SIP 18's focus on improving water provision through improved traditional brick and mortar infrastructure.³¹¹ But according to SIP 19, "the sustained success of SIP 18 is very dependent on the success of SIP 19," as SIP 18's engineering solutions must be coupled with the water that flows from SIP 19's ecological remediation.³¹² SIP 19 presents a road map for how the government can fulfill its public trust responsibilities and the basic right to clean water through preserving the ecological matrix from which that water flows.

The holistic purpose of SIP 19 is "to make a significant contribution to the overall goal of ensuring a sustainable supply of fresh, healthy water to equitably meet South Africa's social, economic and environmental water needs for current and future generations through the integrated implementation of projects within identified priority water catchments."³¹³ The one hundred-page document comprises a model blueprint for how to think about the inextricability of human rights fulfillment, ecological health, and intra- and inter-generational equity. The authors situate ecological infrastructure as "the networks of natural lands, working landscapes and other open spaces that are the substructure or underlying foundation on which the continuance or growth of ecosystem goods and services depends."³¹⁴ As SIP 19 expresses, "these benefits are collectively known as 'watershed services,' and society can't do without them."³¹⁵ The projects the plan lays out, if implemented, would alleviate poverty through the creation of thousands of jobs (particularly in underserved rural areas), improved farming and fishing output, and the provision of more and cleaner water at lower costs.³¹⁶

SIP 19 states:

It is also becoming increasingly recognised that water crises are not only about water, but are interconnected with other social, political, economic and environmental factors. More integrated and sophisticated approaches are therefore required than simply concentrating on supply-side solutions, as has frequently been the case historically in water sectors across the world, including in South Africa.³¹⁷

The plan offers detailed projects and rationales for improving stream, river, estuary, and wetland ecological infrastructure, reforming agricultural practices near critical water sources,³¹⁸ thereby conserving what is irreplaceable and

310. *Id.* at 8.

311. DEP'T OF WATER AFFAIRS, STRATEGIC INFRASTRUCTURE PROJECT 18 (SIP 18): NATIONAL WATER AND SANITATION INFRASTRUCTURE MASTER PLAN (2013).

312. DEP'T OF WATER AFFAIRS, STRATEGIC PLAN, *supra* note 10, at 81; *see also* SIP 19, *supra* note 13.

313. *Id.* at 7.

314. *Id.*

315. *Id.* at 13.

316. *Id.* at 71, 75.

317. *Id.* at 12.

318. *See* WWF-SA, *supra* note 81.

restoring derelict lands that would then offer stronger protection for crucial water flows.³¹⁹

When a government views water provision as a problem of ecological infrastructure, it might look to curb soil erosion by improving farming practices (e.g., decreasing ploughing, which, if done in excess, breaks down organic matter in the soil³²⁰), preventing livestock from grazing in fragile riparian zones, maintaining buffer zones around waterways, and keeping roads and footpaths from the borders of riparian zones.³²¹ Failing to steward waterways leads not only to poorer conditions for aquatic organisms, but also to poor farming practices. Additionally, streamside erosion leads to the siltation of South Africa's more than four thousand dams, dramatically decreasing the lifespan of these dams and leaving them exposed to the possibility of rupture.³²² Erosion increases the need for and costs of artificial filtration of water and decreases the duration of parts, such as pumps and turbines.³²³ Managing these problems at the source not only saves money in the long run by obviating the need for technological fixes, but also helps farmers increase yields, employs people in rural economies, and has ancillary benefits for nonhuman species, which are themselves part of the ecological infrastructure that supports human life. They, in turn, depend upon sound human management to survive.

When we talk about “progressive realization” of a right to water “within its available resources,” we must look at what resources the government has at its disposal. Available resources are not fixed, immutable amounts. When a government does not protect the ecological infrastructure of water, it decreases its own resources. It shrinks its own ecological, and thus economic, budget. When a government squanders its ecological resources, it fails to respect the right to water, and it takes away from users what water they could have, thus squandering the public trust. When it permits actors to despoil the resource—through arrogating and wasting water, approving inappropriate pricing schemes, failing to adequately regulate pollution, and promoting unsound development in the most important catchment areas—it fails to protect the right to water. When it neglects to take proactive measures to enhance ecological infrastructure, it fails to fulfill the right to water. When South Africa neglects water's ecological sources, it violates the National Water Act by failing to protect the Reserve, violates its own Constitution by failing to use its resources to fulfill the human right to water, and breaches international legal stipulations for progressive realization of the human right to water. It thus violates its public trust

319. DEP'T OF WATER AFFAIRS, STRATEGIC PLAN, *supra* note 10, at 8; *see also* SIP 19, *supra* note 13.

320. WWF-SA, *supra* note 81, at 13.

321. DEP'T OF WATER AFFAIRS, STRATEGIC PLAN, *supra* note 10, at 29, 31; *see also* SIP 19, *supra* note 13.

322. *See, e.g.*, DEP'T OF WATER AFFAIRS, STRATEGIC PLAN, *supra* note 10, at 27, 30, 37, 66; WWF-SA, *supra* note 81, at 20.

323. SIP 19, *supra* note 13, at 27, 30.

responsibilities by failing to steward the natural resources that support human life.

If implemented faithfully, the plans described above, which commit South Africa to fulfill its public trust responsibilities by honoring the “indivisibility of water,” would make the nation an international leader in executing its public trust responsibilities to implement the human right to water in a deeply equitable way.

CONCLUSION

In South Africa, the vision of the public trust that marries equity to ecology in a holistic way can only be seen if it is implemented as legally required. The South African government has an unfortunate recent history of lack of capacity, diminished coordination among Ministries, and a tendency to approve mining and other ecologically harmful developments at all costs in the name of economic development.³²⁴

Equity, deep and otherwise, only happens if trustees find and conserve more water through sound management, which entails conserving the Reserve for present and future generations. To not protect the Reserve violates public trust responsibilities. Additionally, the National Water Act’s commands about the Reserve disregards the rights to water named in international norms and in § 27(a)(2) of the Constitution, and fails to progressively fulfill the right to water “within its available resources.”³²⁵ South Africa cannot dissociate equity from ecology—both because the nation’s legal structure demands it not do so and also because it would be impossible to do so even if the law were silent on the subject.

The Public Trust Doctrine prescribes what governments must do to protect the human right to water that citizens are due. The world awaits a vision that links ecology to equity, which sees the preservation of the natural world as the only salvation for those communities. South Africa is not the ethical conscience of the world, but it does have a legal structure that requires it to fulfill the right to water in a sustainable, equitable, and ecologically sensible way. To do so would cement a legacy for the nation’s leaders, civil servants, and citizens. If South Africa promulgated the law, policy, and vision it has described, it would provide the world with hope for a deeply equitable world through marrying ecology to equity. This would, in turn, demonstrate dignity and sustenance

324. For example, as documented in CENTER FOR APPLIED LEGAL STUDIES, *THE MAPUNGBWE STORY: A CAMPAIGN FOR CHANGE* (2015), a recent fight over the operation of the Vele Colliery mine adjacent to Mapungubwe National Park (a national and transboundary park, and UNESCO World Heritage Site) revealed mismanagement of natural heritage, misalignment of key environmentally and socially protective legislation, lack of personnel capacity, failure to observe environmental and other laws by both the government and mining company, all redounding to the negative reputation of the former, and economic disaster to the latter.

325. S. AFR. CONST., (1996), § 27(2).

through a broader conception of humankind's place in the ecological matrix that simultaneously sustains us and now depends on us.