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The New Right in Water

Rhett B. Larson

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Rhett B. Larson*

Abstract

This Article divides all rights into two broad categories—provision rights and participation rights. With a provision right, the government makes substantive guarantees to provide some minimum quantity and quality of a good or service. With a participation right, the government is legally proscribed from interfering with an individual citizen's access to institutions and resources controlled or held in trust by the state, and the state is required to facilitate access to those institutions and resources equally and transparently. A growing number of national constitutions guarantee a right to water. Without exception to date, these constitutions frame the right to water as a provision right. A provision right to water raises serious problems of enforceability, equity, and sustainability. This Article critically evaluates the provision right to water and suggests an alternative participation right in water. The foundation of such a participation right in water is laid in many nations by the public trust doctrine, wherein the state holds title to water resources for the benefit of its citizens. Unlike the typical formulation and implementation of the provision right to water, a participation right is sustainable, equitable, and enforceable, and would facilitate public participation, accountability, and experimentation in water policy.

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* Associate Professor of Law, the University of Oklahoma College of Law. J.D. University of Chicago, M.Sc. Oxford University. I would like to thank Lior Strahilevitz, Douglas Baird, Brian Leiter, Marc Miller, Dan Bodansky, Robin Kundis Craig, Tony Samuel Bray, Tony Arnold, Dan Tarlock, Gabriel Eckstein, Shelley Ross Saxer, Ken Abbott, Carissa Hessick, Andy Hessick, Zachary Kramer, Zachary Gubler, David DePianto, David Gartner, and Troy Rule for their comments on earlier drafts of this article. I would also like to thank the law faculties at the University of North Carolina—Chapel Hill, the University of Arizona, the University of Oklahoma, the University of South Carolina, Texas Tech University, and Florida International University for helpful comments in presenting this paper at faculty symposia. All errors are mine.

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I. Introduction

Currently, 2.3 billion people live without access to adequate water supplies and approximately 6,000 children under the age of five die every day from water-related diseases.[1] Two-thirds of the world's population, or 5.5 billion

1. Malgosia Fitzmaurice, *The Human Right to Water*, 18 FORDHAM ENVTL. L. REV. 537, 538 (2006). "Water stress" occurs where inadequate water quantity or quality prevents water supply from meeting demand during a period of time. *See* U.N. Dep't Econ. & Soc. Affairs, *Water Scarcity*, http://www.un.org/waterforlifedecade/scarcity.html (last visited Sept. 8, 2013) (discussing the

people, are predicted to live in areas of "water stress" by 2025 due to climate change, population growth, and economic development leading to increased consumption.[2] As nations face increasing water stress, droughts, famines, and epidemics could lead to greater conflict over scarce and disputed water resources.[3] Water stress represents the preeminent global challenge of the coming decades.[4] Those who are socially or economically disenfranchised suffer disproportionately from water stress.[5]

In response to the growing crisis of water stress in many parts of the world, there is growing advocacy for a human rights-based approach to water law and policy at both the national and international levels.[6] For example, the United Nations (UN) General Assembly adopted a resolution recognizing an international human right to water in 2010.[7]

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global impact of water stress and water scarcity) (on file with the Washington and Lee Law Review).

2. Amy Liu, *Desalination Is No Panacea, but Holds Potential as Water Shortage Solution*, J. YOUNG INVESTIGATORS (Sept. 2008), http://www.jyi.org/issue/desalination-is-no-panacea-but-holds-potential-as-water-shortage-solution/ (last visited Sept. 8, 2013) (on file with the Washington and Lee Law Review).

3. *See* Meredith Giordano, Mark Giordano & Aaron Wolf, *The Geography of Water Conflict and Cooperation: Internal Pressures and International Manifestations*, 168 GEOGRAPHICAL J. 293, 294 (2002) (proposing an empirical model to analyze the impact of water on international conflicts).

4. *See* Patricia Wouters et al., *Water Security, Hydrosolidarity, and International Law: A River Runs Through It . . .* , 19 Y.B. INT'L ENVTL. L. 97, 98 (2008) (discussing Sir John Beddington, the United Kingdom Government Chief Scientist, who refers to water stress caused by economic development, population growth, and climate change as the "perfect storm" for a global energy and food crisis); Christine McGourty, *Global Crisis 'to Strike by 2030'*, BBC NEWS (Mar. 19, 2009), http://news.bbc.co.uk/2/hi/uk_news/7951838.stm (last visited Sept. 8, 2013) (describing the dangerous combination of environmental change and increased demand for vital resources) (on file with the Washington and Lee Law Review).

5. *See* Enrique R. Carrasco & Alison K. Guernsey, *The World Bank's Inspection Panel: Promoting True Accountability Through Arbitration*, 41 CORNELL INT'L L.J. 577, 586 (2008) (discussing the World Bank Inspection Panel's position that water woes in South Africa are part of the odious legacy of apartheid).

6. *See* G.A. Res. 64/292 ¶¶ 5, 8, U.N. Doc. A/RES/64/292 (July 28, 2010), http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/64/292 [hereinafter 2010 U.N. Resolution] (acknowledging that access to drinking water is an integral component of expanding human rights).

7. *Id.*

The 2010 U.N. Resolution declared that the "right to safe and clean drinking water . . . [is] a human right that is essential for the full enjoyment of life and all human rights."[8] To date, forty-one countries recognize a right to water similar to that of the 2010 UN Resolution in their respective constitutions, including South Africa, Uganda, and Argentina.[9]

Nevertheless, forty-one counties abstained from signing the 2010 UN Resolution when it was first introduced, and the vast majority of nations do not have a constitutionally protected right to water.[10] Reluctance to embrace a rights-based approach to water policy arguably stems from the uncertain effect of such an approach. Formulations of the right to water often leave unanswered the most fundamental and important questions of water policy, including questions of who owns water, how to price water, whether to subsidize water services, and whether such a right is sustainable and enforceable. The challenge of a rights-based approach to water policy is how to frame such a right so as to effectively answer these fundamental questions.

Rights are typically framed in one of two ways.[11] On the one hand, rights could be characterized as negative

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8. *Id.* ¶ 1.

9. *See* Barton H. Thompson, *Water as a Public Commodity*, 95 MARQ. L. REV. 17, 32–33 (2011) (describing a small but growing trend towards recognizing a constitutional right to water).

10. *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), http://www.un.org/News/Press/docs/2010/ga10967.doc.htm (last visited Sept. 4, 2011) (abstaining countries at the time of introduction include Australia, Botswana, Canada, Denmark, Ethiopia, Greece, Israel, Kenya, Sweden, Turkey, the United Kingdom, and the United States) (on file with Washington and Lee Law Review). The United States expressed concerns that the Resolution could frustrate efforts to develop a more durable human right to water on other fronts. *See* Memorandum from John F. Sammis, U.S. Deputy Representative to the Econ. & Soc. Council, Explanation of Vote by John F. Sammis, U.S. Deputy Representative to the Economic and Social Council, on Resolution A/64/L.63/Rev.1, the Human Right to Water (July 28, 2010), http://www.usun.state.gov/briefing/statements/2010/145279.htm (last visited Sept. 8, 2013) (explaining to the President the decision to abstain from voting) (on file with Washington and Lee Law Review).

11. *See* Isaiah Berlin, *Two Concepts of Liberty*, *in* FOUR ESSAYS ON LIBERTY 118, 121–22 (1969) (discussing the basic distinction between positive and negative rights); Frank B. Cross, *The Error in Positive Rights*, 48 UCLA L. REV.

rights.[12] These rights include freedom of speech, freedom from religious, racial, or ethnic discrimination, and freedom from arbitrary deprivations of life, liberty and property by the government.[13] Such rights are guarantees against government action, unless the government provides citizens due process and demonstrates a sufficient compelling countervailing government interest.[14] The First and Fourteenth Amendments to the U.S. Constitution and the rights enumerated in U.N. Covenant on Civil and Political Rights (the CP Covenant) are examples of negative rights.[15]

On the other hand, rights could be characterized as positive rights.[16] Positive rights include rights to education, to health care, or to housing.[17] These positive rights create affirmative duties, requiring governments to take action to ensure them.[18] The rights enumerated in the U.N. Covenant on Economic, Social, and Cultural Rights (the ESC Covenant) are examples of positive rights, which include adequate wages, food, clothing, housing,

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857, 863 (2001) (arguing that Berlin's original distinction between positive and negative rights has changed over time, especially in regards to positive rights to government support).

12. *Supra* note 11 and accompanying text.

13. *See* RONALD DWORKIN, TAKING RIGHTS SERIOUSLY 269 (1979) ("If someone has a right to something, then it is wrong for the government to deny it to him even though it would be in the general interest to do so.").

14. *See, e.g.*, City of Cleburne v. Cleburne Living Ctr., 473 U.S. 432, 440 (1985) (stating that legal classifications based on race are valid under the Fourteenth Amendment only if they are tailored to serve a "compelling state interest").

15. *See* International Covenant on Civil and Political Rights, G.A. Res. 2200 (XXI), U.N. GAOR, 21st Sess., Supp. No. 52, U.N. Doc. A/RES/2200(XXI), at 52–58 (Dec. 16, 1966) [hereinafter CP Covenant] (recognizing numerous areas in which people are free from government interference).

16. *See* Berlin, *supra* note 11, at 122 (stating that positive rights grant a person or entity the authority to order another into action).

17. *See* Michael C. Blumm & Rachel D. Guthrie, *Internationalizing the Public Trust Doctrine: Natural Law and Constitutional and Statutory Approaches to Fulfilling the Saxion Vision*, 45 U.C. DAVIS L. REV. 741, 789–90 (2012) (discussing the South African Constitution, which provides positive rights to sufficient food and water). *See generally* Kenneth Roth, *Defending Economic, Social and Cultural Rights: Practical Issues Faced by an International Human Rights Organization*, 26 HUM. RTS. Q. 63 (2004).

18. *See* Cross, *supra* note 11, at 864 (describing positive rights as the right to "command government action").

health care, and education.[19] The distinction between positive and negative rights, while in some ways intuitive, is problematic because even negative rights impose an affirmative obligation on the state to provide some adjudicative and enforcement mechanisms.[20]

Instead of this more common distinction between negative and positive rights, this Article distinguishes between "provision rights" and "participation rights."[21] Under provision rights, the government guarantees provision of a certain quantity and quality of goods or services.[22] Provision rights roughly correspond to positive rights. Under a participation right, the government is proscribed from interfering with institutions or resources controlled or held in trust by the state without meeting threshold levels of transparency, due process, and public participation. Even in those instances, the state must demonstrate a countervailing public interest.[23] Participation rights roughly correspond to negative rights. The provision versus participation distinction is preferable to the more common distinction between negative and positive rights because it explicitly acknowledges the key interests and obligations at stake with each kind of right, as well as the fact that, regardless of the type of right, the state has prescribed obligations, as opposed to merely proscribed acts, behaviors, or rationales.[24] Another way of understanding the

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19. *See* International Covenant on Economic, Social, and Cultural Rights, G.A. Res. 2200 (XXI), U.N. GAOR, 21st Sess., Supp. No. 49, U.N. Doc. A/RES/2200(XXI), at 49–52 (Dec. 16, 1966) [hereinafter ESC Covenant] (recognizing numerous positive rights to basic human necessities).

20. *See, e.g.*, Cross, *supra* note 11, at 864–65 (discussing the argument that all rights are positive rights because even negative rights depend on government action).

21. *See generally* Justin Marceau, *Challenging the Habeas Process Rather than the Result*, 69 WASH. & LEE L. REV. 85 (2012).

22. *See, e.g.*, Jaime Dodge, *The Limits of Procedural Private Ordering*, 97 VA. L. REV. 723, 725 (2011) (stating that courts in the United States offer a certain quantity of procedural justice).

23. *See, e.g.*, Alec Walen, *A Unified Theory of Detention, with Application to Preventive Detention for Suspected Terrorists*, 70 MD. L. REV. 871, 874 (2011) (arguing that despite committing no crime, prisoners of war can be detained legally and morally because the risks of war outweigh the moral principles underlying the criminal justice system).

24. *See* Cross, *supra* note 11, at 864–65 (discussing the theoretical difficulties with a positive and negative rights dichotomy).

difference between these types of rights is that provision rights are rights *to* some good or service (healthcare, education, food, water), whereas participation rights are rights *in* some institution or resource held in trust by the state for the benefit of its citizens (courts, regulatory bodies, elections, state-controlled infrastructure, or natural resources).

National constitutions, legal scholars, and advocates of the international human right to water typically frame the right to water as a provision right.[25] For example, the U.N. Human Rights Commission issued General Comment 15 to the ESC Covenant in 2002, which considers a provision right to water a prerequisite to the realization of other rights under the ESC Covenant, including the right to a standard of living and adequate food.[26] Furthermore, where the right to water is recognized by domestic courts or constitutions, it has been exclusively framed as a provision right.[27]

In one sense, the case for a provision right to water seems simple and compelling. People need water to survive. All other government actions are irrelevant without basic water provision. Of course, implementing a provision right to water is not simple.

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25. *See* Fitzmaurice, *supra* note 1, at 539–40 (discussing the origins of a positive right to water); Stephen C. McCaffrey, *A Human Right to Water: Domestic and International Implications*, 5 GEO. INT'L ENVTL. L. REV. 1, 7 (1992) (advocating international action to recognize a human right to water); Peter H. Gleick, *The Human Right to Water*, 1 WATER POL'Y 487, 487–503 (1999) (arguing that the right to water is a fundamental human right supported by international law); 2010 U.N. Resolution, *supra* note 6, ¶ 8 (recognizing the human right to "safe and clean drinking water and sanitation"). *See generally* Anna F. S. Russell, *International Organizations and Human Rights: Realizing, Resisting, or Repackaging the Right to Water?*, 9 J. HUMAN RIGHTS 1 (2010).

26. *See* General Comment No. 15, Subcomm. on the Promotion & Prot. of Human Rights, 29th Sess., Nov. 29, 2002 ¶ 3, U.N. Doc. E/C.12/2002/11 (Jan. 20, 2002) [hereinafter General Comment 15] (stating that the right to water "clearly falls within the category of essential guarantees for securing an adequate standard of living").

27. *See* UNITED NATIONS & WORLD HEALTH ORG., THE RIGHT TO WATER: FACT SHEET NO. 35, 1, http://www.ohchr.org/Documents/Publications/FactSheet 35en.pdf ("Several national constitutions protect the right to water or outline the general responsibility of the State to ensure access to safe drinking water and sanitation for all."); CONSTITUTION, art. 43 (2010) (Kenya) (providing a positive right to healthcare, housing, food, water, social security, and education); CONSTITUTIÓN POLITICA DE LA REPÚBLICA DEL ECUADOR 2008 [C.P.] ch. 2, § 1, *available at* http://pdba.georgetown.edu/Constitutions/Ecuador/ecuador08.html#mozTocId64283 (declaring the human right to water essential).

In India, for instance, the Supreme Court inferred a provision right to water from the constitutional right to life under Article 21 of the Constitution of India.[28] The Court stated that "the right to access to clean drinking water is fundamental to life and there is a duty on the state under Article 21 to provide clean drinking water to its citizens."[29] Despite this provision right, only seventeen percent of the population in India has access to tapped, treated water, including only thirty-eight percent of urban residents.[30] Eighty percent of the children in India suffer from water-borne diseases, with a total of forty-four million people suffering from illnesses related to poor water quality.[31] The example of India illustrates the larger reality—adopting a provision right to water has not resulted in improved water provision.[32]

Actual provision of an adequate quantity and quality of water thus does not necessarily follow the legal recognition of a provision right to water.[33] A provision right to water may fail to achieve effective and equitable water provision for many reasons. First, provision rights in general raise problems of judicial enforcement.[34] The judiciary, as the arbiter of rights, may lack

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28. *See* INDIA CONST. art. 21 (providing due process protection for life and liberty).

29. A.P. Pollution Control Bd. II v. Naidu, (2000) Supp. 5 S.C.R. 249, at ¶ 3, http://www.ielrc.org/content/e0010.pdf.

30. Erik B. Bluemel, *The Implications of Formulating a Human Right to Water*, 31 ECOLOGY L.Q. 957, 981 (2004); *see also* Ruchi Pant, *From Communities' Hands to MNCs' BOOTs: A Case Study from India on Right to Water*, THE RIGHTS TO WATER & SANITATION 16–17 (2003), http://www.righttowater.info/wp-content/uploads/From-Communities-Hands-to-MNCs-BOOTs.pdf (providing numerous statistics regarding water shortages throughout India).

31. Bluemel, *supra* note 30, at 981.

32. *See* David Zetland, Water Rights and Human Rights: The Poor Will Not Need Our Charity if We Need Their Water 5–7 (Oct. 8, 2012) (unpublished manuscript), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1549570 (last visited Oct. 3, 2013) (showing through empirical analysis that constitutional rights to water in twelve countries had little effect on water availability) (on file with the Washington and Lee Law Review).

33. *Supra* note 32 and accompanying text.

34. *See* LAURENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW 1336 (2d ed. 1988) (stating that affirmative obligations placed upon governments to provide basic sustenance to its citizens would be subject to difficulties with judicial enforcement).

the relative institutional competency as compared to other governmental entities, to effectively establish minimum quantities and qualities and maximum and minimum prices of goods and services.[35] In short, a provision right to water implicates the "familiar difficulties with judicial enforcement of affirmative duties."[36]

Second, water is unique among other candidates for the status of provision right. The investments required for water and sanitation infrastructure are uniquely high, even as compared to the capital requirements other candidates for provision right status, like education or healthcare.[37] Because water infrastructure is uniquely capital intensive, the countries most in need of a provision right to water are also those typically least able to afford it.[38] Furthermore, political pressure on government rate-makers and government corruption in granting concession contracts to water utility companies have negative impacts attracting investment and lending in water infrastructure financing, cost recovery for water services, and water pricing.[39]

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35. *See* Pennsylvania v. West Virginia, 262 U.S. 553, 618–23 (1923) (Brandeis, J., dissenting) (arguing that the Court does not have the institutional capabilities to determine the proper allocation of natural gas between Pennsylvania, Ohio, and West Virginia).

36. TRIBE, *supra* note 34, at 1336.

37. *See, e.g.*, JAMES WINPENNY, WORLD PANEL ON FINANCING WATER INFRASTRUCTURE, FINANCING WATER FOR ALL 6 (2003) [hereinafter CAMDESSUS REPORT] (stating that because only ten percent of water infrastructure is financed privately, public funding is important in developing water infrastructure); John Briscoe, *The Financing of Hydropower, Irrigation and Water Supply Infrastructure in Developing Countries*, 15 INT'L J. WATER RESOURCES DEV. 459, 460 (1999) (estimating that developing nations spend $65 billion annually on water-related infrastructure); Camille Pannu, *Drinking Water and Exclusion: A Case Study from California's Central Valley*, 100 CAL. L. REV. 223, 268 (2012) (noting the high cost of upgrading water infrastructure).

38. *See generally* John Briscoe, *The Changing Face of Water Infrastructure Financing in Developing Countries*, 15 INT'L J. WATER RESOURCES DEV. 301 (1999).

39. *See* David Hall & Emanuele Lobina, *Pipe Dreams: The Failure of the Private Sector to Invest in Water Services in Developing Countries*, PUB. SERVS. INT'L RESEARCH UNIT 43–44 (Mar. 2006), http://gala.gre.ac.uk/3601/1/PSIRU_9618_-_2006-03-W-investment.pdf (discussing a case of political corruption in awarding a water infrastructure contract to a Turkish company). *See generally* Emmanuel Jimenez, *Human and Physical Infrastructure: Public Investment and Pricing Policies in Developing Countries*, *in* 3 HANDBOOK DEV. ECON. 2773 (1995).

Additionally, because water is a common-pool resource that falls for free out of the sky and often carries significant cultural and religious meaning, people are generally more reluctant to pay full price for its provision than for other goods or services.[40] These factors combine to make water services underpriced in most of the world, leading to serious sustainability problems.[41] Underpriced water results in greater water consumption and water waste, with associated ecological and human health impacts, and decreases cost recovery on water provision, thus decreasing investment in improving, expanding, and developing water treatment and distribution infrastructure.[42] Policies leading to underpriced water, including a provision right to water, are bad for the environment, bad for the economy, and bad for the poor.

This Article evaluates the provision right to water, including the challenges of enforceability associated with provision rights in general and the unique implications for economic and ecologic sustainability associated with a provision right to water more specifically. This Article then proposes an alternative approach based on participation rights that avoids the questions of enforceability and sustainability, while enhancing transparency and stakeholder involvement in the development of water policy. Essentially, I argue against a right *to* water, but in favor of a right *in* water.

This Article proceeds in three parts. Part II discusses the rationale behind a rights-based approach to water policy, distinguishes provision rights from participation rights, and describes the current predominant formulation of a provision right to water.[43] The rationale behind a right to water is that

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40. *See* Robert Glennon, *Water Scarcity, Marketing, and Privatization*, 83 TEX. L. REV. 1873, 1883 (2005) (arguing that the low price of water leads to inefficient water use).

41. *See generally* JAMES WINPENNY, MANAGING WATER AS AN ECONOMIC RESOURCE (1994).

42. *See* CAMDESSUS REPORT, *supra* note 37, at 10 (discussing water sector risks); Charles Sampford, *Water Rights and Water Governance: A Cautionary Tale and the Case for Interdisciplinary Governance*, *in* WATER ETHICS 45, 47 (Marcelino Botin ed., 2007) (stating that because Australian farmers receive water for free, they use water inefficiently).

43. *See* General Comment 15, *supra* note 26, ¶ 16 (delineating a positive right to water).

such an approach emphasizes the primacy of water and also empowers the economically or socially disadvantaged who suffer most from water stress.[44] Part III provides a critique of the current provision-rights paradigm to the right to water, using a case study from South Africa to illustrate why this approach is often ecologically and economically unsustainable and practically unenforceable.[45] In summary, the provision right to water is unenforceable because courts lack the institutional competency to evaluate the adequacy of water quality, quantity, and pricing.[46] The provision to water is unsustainable because it leads to underpriced water, and cheap water leads to increased water consumption and less cost recovery to maintain and upgrade water infrastructure.[47]

Using an example from a recent case in Botswana, Part IV proposes and evaluates an alternative approach based on a participation right in water.[48] A participation rights approach avoids the problems of sustainability associated with provision rights while ensuring procedural safeguards in water policy and empowering disadvantaged communities with an enforceable right.[49] Empowering disadvantaged communities and establishing procedural safeguards will facilitate fair and broad stakeholder participation in water-policy development, and mitigate the effect of government corruption on sustainable and equitable water policy.[50] While a participation right could be expressly incorporated into a national constitution, existing civil and political rights jurisprudence and legal doctrines may allow for the organic development of a participation right in water. In

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44. *Infra* Part II.

45. *Infra* Part III.

46. *See* Pennsylvania v. West Virginia, 262 U.S. 553, 618–23 (1923) (Brandeis, J., dissenting) (arguing that the Court does not have the institutional capabilities to determine the proper allocation of natural gas between Pennsylvania, Ohio, and West Virginia).

47. *See* CAMDESSUS REPORT, *supra* note 37, at 10 (describing specific risks associated with water that lead to overutilization and underproduction).

48. *Infra* Part IV.

49. *See* Hubert H.G. Savenije & Pieter van der Zaag, *Water as an Economic Good and Demand Management: Paradigms with Pitfalls*, 27 WATER INT'L 98, 100 (2002) (arguing that free water favors the rich at the expense of the poor).

50. *See* Hall & Lobina, *supra* note 39, at 44 (discussing a case of political corruption in awarding a water infrastructure contract to a Turkish company).

particular, I argue that the public trust doctrine provides a foundation for a participation right in water. The public trust doctrine as applied to water means that title to all water is held by the state for the benefit of all citizens.[51] As a doctrine grounded in Roman and British law and increasingly recognized under international law, the public trust doctrine provides a broadly accepted foundation upon which to build a participation right in water.[52] Indeed, something akin to participation rights in other public trust resources has already been recognized and enforced in many instances.[53]

This Article argues that the interest citizens, as beneficiaries of the public trust, hold in water is akin to a property right, with the state owing a fiduciary duty to its citizens under the public trust doctrine to facilitate stakeholder participation in water policy development and establish procedural protections for water management decisions, like rate increases or disconnection. Where a state unreasonably interferes with that quasi-property

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51. *See* Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 475–77 (1970) (discussing the historical development of the public trust doctrine).

52. *See* Ved P. Nanda & William K. Ris, *The Public Trust Doctrine: A Viable Approach to International Environmental Protection*, 5 ECOLOGY L.Q. 291, 297–98 (1976) (discussing the Roman and English law origins of the public trust doctrine); Blumm & Guthrie, *supra* note 17, at 741; Mark Dowie, *In Law We Trust*, ORION MAG., July 2005, http://www.orionmagazine.org/index.php/articles/article/122 (last visited Sept. 8, 2013) (discussing the historical evolution of the public trust doctrine) (on file with the Washington and Lee Law Review).

53. *See, e.g.*, Nat'l Audobon Soc'y v. Superior Court, 658 P.2d 709, 731 (Cal. 1983) (allowing the state to revoke prior use permit without implicating eminent domain because of public trust doctrine); R.W. Docks & Slips v. State, 628 N.W.2d 781, 791 (Wis. 2001) (denying permit to riparian to finish construction of marina based on habitat protection was not a regulatory taking requiring compensation because of public trust doctrine); Labroador Inuit Ass'n v. Newfoundland, [1997] 155 Nfld. & P.E.I.R. 93, 113 (Can.) (overturning the government's decision to exempt a mining project from environmental assessment under the public trust doctrine); M.C. Mehta v. Kamal Nath, (1996) 1 S.C.C. 388, 415 (India) (ruling that a lease of public land approving blasting within a national park violated the public trust doctrine); Waweru v. Republic, (1996) 1 K.L.R. 677 (Kenya) (holding that government refusal to prosecute a boat discharging raw sewage into the Kiserian River constituted a violation of the public trust doctrine); Oposa v. Factoran, G.R. No. 101083, 224 S.C.R.A. 792, 797–98 (July 30, 1993) (Phil.) (holding that logging licenses on public land violated the constitutionally established public trust doctrine). These cases are hereinafter referred to as "Examples of Public Trust Doctrine Application Internationally."

right or violates that fiduciary duty under the public trust doctrine without due process, transparency, and a compelling countervailing state interest, the state infringes its citizens' participation right in water. If framed properly, a participation right in water based on the public trust doctrine would promote transparency, accountability, and experimentation in the development of water policy.

II. The Purpose and Formulation of the Right to Water

Isaiah Berlin wrote: "First things come first: there are situations, as a nineteenth-century Russian radical writer declared, in which boots are superior to the works of Shakespeare; individual freedom is not everyone's primary need."[54] As Berlin recognized, provision of primary needs, like water, is a foundation upon which to build a society capable of protecting individual freedom.[55] Applying the rights framework to the provision of primary needs both elevates their legal priority and provides legal recourse for the least advantaged to secure their access to these essential resources.[56]

Water is a peculiar "primary need" because it is the only primary need a government is capable of providing for which there is no substitute.[57] There are different kinds of food, energy, shelter, education, employment, and health care. But only water is water. There is no person, industry, or nation that does not depend on it, and it is embedded in every product and service.[58]

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54. Berlin, *supra* note 11, at 124.

55. *See id.* (arguing that peasants in ancient Egypt needed the basic necessities of life more than they needed individual liberty).

56. *See* Tara J. Melish, *Maximum Feasible Participation of the Poor: New Governance, New Accountability, and a 21st Century War on the Sources of Poverty*, 13 YALE HUM. RTS. & DEV. L.J. 1, 1–2 (2010) (arguing that the federal government should retake control of social welfare law). *See generally* JULIA HÄEUSERMANN, A HUMAN RIGHTS APPROACH TO DEVELOPMENT (1998).

57. *See* Aaron T. Wolf, *Criteria for Equitable Allocations: The Heart of International Water Conflict*, 23 NAT. RESOURCES FORUM 3, 3 (1999), http://onlinelibrary.wiley.com/doi/10.1111/j.1477-8947.1999.tb00235.x/pdf ("Water is the only scarce resource for which there is no substitute . . . .").

58. *Supra* note 57 and accompanying text; *see also* Thompson, *supra* note 9, at 18–19 ("Water is unique among all resources. Water is essential not only to life, but to virtually any human endeavor and thus the betterment of society.").

Moreover, unlike other primary needs, water moves—it moves through the air, through rivers, and through the ground without regard to political borders, and moves through international commerce.[59] Water transports energy, nutrients, minerals, diseases, and toxins around the world. It is essential to all life on earth and is a significant cause of death on the planet.[60] The unique nature of water makes it a prime candidate for the status of a "right," but that unique nature also makes framing the right to water uniquely challenging.[61]

This section discusses the rationale behind a rights-based approach to water policy, distinguishes participation rights from provision rights, and describes the predominant provision rights formulation of the right to water.

A. The Rationale Behind a Rights-Based Approach to Water Policy

Some scholars have argued against a rights-based approach to human welfare issues.[62] The debate about the efficacy of a

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59. *See* J.A. (Tony) Allan, *Virtual Water - the Water, Food, and Trade Nexus Useful Concept or Misleading Metaphor*, 28 WATER INT'L 4, 4–5 (2003) (explaining that countries trading in water-intensive agricultural goods are also trading in the use of water); J.A. Allan, *Virtual Water—Part of an Invisible Synergy that Ameliorates Water Scarcity*, *in* WATER CRISIS: MYTH OR REALITY? 131, 134 (Peter P. Rogers et al. eds., 2006) (explaining that the "dominant use of water" is food production).

60. *See* PETER H. GLEICK, DIRTY WATER: ESTIMATED DEATHS FROM WATER-RELATED DISEASES 2000–2020, at 9 (2002), http://www.pacinst.org/wp-content/uploads/2013/02/water_related_deaths_report3.pdf (predicting that "as many as 76 million people will die by 2020 of preventable water-related diseases").

61. *See* Thompson, *supra* note 9, at 33 ("[T]he view that water is a human right remains highly contested. . . . [A]pproximately 20% of all the countries who are members of the United Nations voted to abstain from the recent declaration of water as a human right.").

62. *See* Eric A. Posner, *Human Welfare, Not Human Rights*, 108 COLUM. L. REV. 1758, 1758 (2008) (introducing the idea that "international concern should be focused on human welfare rather than on human rights"); Laurence R. Helfer, *Overlegalizing Human Rights: International Relations Theory and the Commonwealth Caribbean Backlash Against Human Rights Regimes*, 102 COLUM. L. REV. 1832, 1857–58 (2002) (illustrating the "unsettling possibility that the optimal level of compliance with a human rights treaty for a particular state might be less than perfect compliance").

rights-based approach to human welfare in general is outside the scope of this Article. Nevertheless, this subsection provides a brief discussion of the rationales typically given in support of a rights-based approach toward human welfare issues, like water policy. This discussion is necessary to evaluate the aims and efficacy of a right to water, whether a provision right or a participation right.[63] Most arguments in favor of a right to water rely on one of three rationales—that the right to water fosters appropriate policy priorities, facilitates equality, and advances government accountability.[64]

The Bolivian Water War of 2000 provides useful context to illustrate these different rationales. The City of Cochabamba in Bolivia had been suffering from severe water supply, quality, and infrastructure problems.[65] Only half the population was connected to the city's water system, while others were forced to find alternative means to supply themselves with water.[66] To secure necessary funding for improvements, Cochabamba privatized the city's water supply and infrastructure.[67] The

63. *See* Cross, *supra* note 11, at 864 (describing positive and negative rights).

64. *See* VANDANA SHIVA, WATER WARS: PRIVATIZATION, POLLUTION, AND PROFIT 15, 27–28, 34–36 (2002) (arguing that the privatization of water resources "destroy[s] the earth and aggravate[s] inequality" and therefore water should be recognized as a human right); David R. Boyd, *No Taps, No Toilets: First Nations and the Constitutional Right to Water in Canada*, 57 MCGILL L.J. 81, 122–23 (2011) (arguing that recognizing a right to water will "provide a means of holding governments accountable"); Simon Caney, *Climate Change, Human Rights and Moral Thresholds*, *in* HUMAN RIGHTS AND CLIMATE CHANGE 69, 73 (Stephen Humphreys ed., 2010) (arguing that classifying water as a human right may give the term "lexical priority" and thus encourage better policy).

65. *See* OSCAR OLIVERA & TOM LEWIS, ¡COCHABAMBA! WATER WAR IN BOLIVIA 7–8 (2004) (explaining the city's historical problems with water and water supply).

66. *See id.* at 8–9 (explaining the way Cochabamba's residents received water at the time the government privatized the water utility); Simon Marvin & Nina Laurie, *An Emerging Logic of Urban Water Management, Cochabamba, Bolivia*, 36 URB. STUDS. 341, 343 (1999) (detailing the water problems facing low income communities in Latin America).

67. *See Private Passions*, ECONOMIST (July 17, 2003), http://www.economist.com/node/1906828 (last visited Sept. 18, 2013) (discussing the water infrastructure projects the Bolivian government desired to accomplish through privatizing the utility) (on file with the Washington and Lee Law Review); Kristin Komives, *Designing Pro-Poor Water and Sewer Concessions: Early*

concession contract to the private water utility required increases in water tariffs and prohibition of alternative methods of water provision other than connection to the city system.[68]

The public response to Cochabamba's prohibition on alternative water sourcing and increased water rates quickly escalated into large-scale protests of the concession contract by early 2000.[69] After a prolonged and violent standoff, the protestors and the government reached an accord, nullifying the concession contract, repealing prohibitions on alternative water provision, and turning over ownership and operation of the city's water services to the municipal government.[70] Water quality and

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Lessons from Bolivia 1 (World Bank, Working Paper No. 2243, 1999) (last visited Oct. 3, 2013), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=629179 (explaining that governments of developing countries often turn to privatization in order to fund water infrastructure improvements) (on file with the Washington and Lee Law Review).

68. *See* Andrew Nickson & Claudia Vargas, *The Limitations of Water Regulation: The Failure of the Cochabamba Concession in Bolivia*, 21 BULL. LATIN AM. RES. 99, 107 (2002) (detailing the nature and effects of the Bolivian concession contract for water provision). Cochabamba issued a concession contract to the sole bidder on its water project, a consortium led by U.S. construction company Bechtel, called Aguas del Tunari (ADT). *Id.* at 106. ADT signed a forty-year concession contract with the city, with a guaranteed 16% annual return on investment. *Id.* at 100, 111. The exigencies of meeting ADT's contractual rights resulted in an increase in water rates of 35%. *Id.* at 107, 111. The fee structure set up by the concession contract, along with an increase in supply due to leak prevention, led to some water bills rising as much as 200%. *Id.* at 111–12.

69. *See* OLIVERA & LEWIS, *supra* note 65, at 33–49 (detailing the standoff and conflict that eventually lead to water management in Cochabamba being entrusted to the municipal government).

70. *Id.* Cochabamba claimed that ADT had abandoned the city and thus voided the contract as the grounds for nullifying the concession contract. *See* Timothy O'Neill, Note, *Water and Freedom: The Privatization of Water and its Implications for Democracy and Human Rights in the Developing World*, 17 COLO. J. INT'L ENVTL. L. & POL'Y 357, 370–71 (2005–2006) (describing the events leading up to the rescission of the water contract between the Bolivian government and ADT). ADT brought a claim against the government of Bolivia in the International Centre for the Settlement of Investment Disputes (ICSID), claiming breach of the concession contract and violation of international law. *See* Amanda L. Norris & Katina E. Metzidakis, *Public Protests, Private Contracts: Confidentiality in ICSID Arbitration and the Cochabamba Water War*, 15 HARV. NEGOT. L. REV. 30, 42 (2010) (providing an account of ADT's actions after water services in Cochabamba were turned back over to the municipal government).

water services remain problematic in Cochabamba, with more than half of the city's population unconnected to services.[71]

The Cochabamba water conflict illustrates the three main rationales for a rights-based water policy. The first rationale is that a right to water serves as a bulwark against inequity.[72] Advocates fear that water policy driven by profit will make water less affordable for the poor.[73] Empirical studies indicate that privatization typically does lead to increased water rates.[74] There are several reasons for this, including the political pressure on public systems to maintain low rates and the necessity of private water utilities to see a return on large up-front investments in infrastructure expansion and refurbishment (with increased rates often guaranteed in government contracts).[75] This raises the concern that private water companies will neglect poorer communities because of the greater likelihood of cost recovery for improvements and services in wealthier areas.[76] A rights-based approach is thus partially a response to the perceived economic inequalities arising from privatization, whereby water is guaranteed as a right regardless of ability to pay.[77] Nevertheless,

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71. *See* Juan Forero, *Bolivia Regrets IMF Experiment*, N.Y. TIMES (Dec. 14, 2005), http://www.nytimes.com/2005/12/14/business/worldbusiness/14iht-water.html?pagewanted=all&_r=0 (last visited Sept. 18, 2013) ("[H]alf of the 600,000 people in Cochabamba remain without water, and those who do have service have it only intermittently, some as little as three hours a day.") (on file with the Washington and Lee Law Review); MICHAEL J. ROUSE, INSTITUTIONAL GOVERNANCE AND REGULATION OF WATER SERVICES THE ESSENTIAL ELEMENTS 141–42 (2007) (detailing the state of Cochabamba's water supply after the failed attempt at privatization).

72. *See* Thompson, *supra* note 9, at 38 (explaining the claim that anything other than a rights-based approach to water policy will result in gross disadvantage to the world's poor).

73. *See id.* ("[A]dvocates fear that privatized water companies will make it more difficult for the poor to obtain water directly from urban systems.").

74. *See* Jennifer Davis, *Private-Sector Participation in the Water and Sanitation Sector*, 30 ANN. REV. ENV'T & RESOURCES 145, 166 (2005) ("[M]uch of the empirical literature on [private sector participation] in [water and sewer] service delivery documents increases in monthly service fees following privatization.").

75. *See id.* at 165–67 (explaining the reasons behind price increases when water services are privatized).

76. *See id.* at 165 (explaining that providing water services to the poor must be prioritized when privatization takes place because there will be less economic incentive to serve these communities).

77. *See* Boyd, *supra* note 64, at 112 ("There are a number of reasons why it

the Cochabamba example illustrates that inequity existed before privatization, and persists under the current publicly owned water system in Cochabamba.[78] In any event, a rights-based approach to water policy is most often justified on the grounds that it guarantees a minimum quantity and quality of water for all, regardless of ability to pay.

The second rationale relates to the idea of putting "first things first," as Berlin suggests.[79] When the label "right" is attached to a public policy issue, the label gives that issue "lexical priority."[80] Water is thus often characterized as a right because it is essential to the realization of all other rights and a precondition for economic development.[81] Additionally, water is traditionally most closely associated with environmental law.[82] Applying the "rights" label elevates water relative to other policy priorities by appealing to a constituency beyond environmentalists.[83]

The "putting first things first" rationale for rights-based water policy is evident in the Cochabamba example on both sides.[84] Advocates of privatization argued that it would attract investment in improving water quality and infrastructure, essential to providing a foundation for other economic

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is important to recognize that access to safe drinking water is a legally protected human right, rather than a commodity or a service provided on a charitable basis.").

78. *Supra* note 71 and accompanying text.

79. *Supra* note 54 and accompanying text.

80. *See* Caney, *supra* note 64, at 73 (using the term "lexical priority" to argue that "human rights generally take priority over moral values"); Daniel Bodansky, *Climate Change and Human Rights: Unpacking the Issues*, 38 GA. J. INT'L & COMP. L. 511, 514 (2010) (discussing the possibility that human rights have "lexical priority" in the context of climate change and environmental law).

81. General Comment 15, *supra* note 26, ¶ 1. General Comment 15 provides that sufficient clean water is a human right because it is "indispensable for leading a healthy life in human dignity" and a "prerequisite to the realization of all other human rights." *Id.*

82. *See* Bodansky, *supra* note 80, at 512–14 (contrasting environmental and human rights law as applied to the issue of climate change).

83. *See id.* at 518 ("[C]haracterizing something as a human rights problem elevates its standing relative to other issues. It gives the problem greater moral urgency and appeals to an additional constituency beyond environmentalists.").

84. *Supra* note 54 and accompanying text.

development and the ultimate realization of expanded rights.[85] On the other hand, protestors argued that a right to water guaranteed provision of adequate water as a prerequisite to any other development goal, and high tariffs driven by profit demands of investors violated that right.[86]

The third rationale for recognizing a right to water is to facilitate government accountability and transparency.[87] This rationale speaks to a fundamental doctrine of water law in many parts of the world—the public trust doctrine.[88] Under the public trust doctrine, title to water resources is held by the state as trustee for the benefit of citizens, with a state obligation to manage water resources for the general public welfare.[89] The public trust doctrine, though applied in different ways in different nations, is a recognized legal doctrine in much of the world, including India, Pakistan, the Philippines, Uganda, Kenya, Nigeria, South Africa, Brazil, Ecuador, and Canada.[90] A

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85. *See* Jessica Budds & Gordon McGranahan, *Are the Debates on Water Privatization Missing the Point? Experiences from Africa, Asia and Latin America*, 15 ENV'T & URBANIZATION 87, 108 (2003) ("Most countries have been under substantial donor pressure to privatize, in order to access loans or debt relief. . . . In Tanzania, the World Bank has recommended improvements . . . in order to attract a private sector operator, but is not willing to grant further financial assistance until one is in place.").

86. *See* Bluemel, *supra* note 30, at 967 (describing the protests against privatizing water services due to the risk poorer communities face of either higher prices or less service); Juan Miguel Picolotti, The Right to Water in Argentina (Nov. 5, 2003) (unpublished manuscript) (advocating for an internationally recognized right to water) (on file with the Washington and Lee Law Review); THE COCHABAMBA DECLARATION, Dec. 8, 2000 [hereinafter COCHABAMBA DECLARATION], *available at* http://www.nadir.org/nadir/initiativ/agp/free/imf/bolivia/cochabamba.htm#declaration ("Water is a fundamental human right and a public trust to be guarded by all levels of government, therefore, it should not be commodified, privatized or traded for commercial purposes.").

87. *See* Boyd, *supra* note 64, at 122–23 (arguing that recognizing a right to water will "provide a means of holding governments accountable").

88. *See* Nanda & Ris, *supra* note 52, at 297–98 (explaining how the public trust doctrine could function if used for environmental protection). S*ee generally* Sax, *supra* note 51.

89. *See* Thompson, *supra* note 9, at 20 (explaining the public trust doctrine as it relates to water rights).

90. *See* Blumm & Guthrie, *supra* note 17, at 745 ("In [India, Pakistan, the Philippines, Uganda, Kenya, Nigeria, South Africa, Brazil, Ecuador, and Canada], the [public trust] doctrine has become equated with environmental protection and is frequently entrenched in constitutional and statutory

rights-based approach may provide citizens with a potential remedy against mismanagement by the trustee of public trust resources.[91] Opponents of the Cochabamba concession relied on the public trust doctrine in their arguments opposing privatization of the Cochabamba water and infrastructure, noting that water is "a public trust to be guarded by all levels of government."[92]

These three rationales—equity, priority, and accountability—also influence how a right to water is framed, whether as a provision right or as a participation right.[93] It is to that distinction that this Article now turns.

B. Delineating Provision Rights and Participation Rights

The previous subpart enumerates possible answers to the question "Why recognize a right to water?" This subpart discusses two types of rights in which the right to water could be categorized. These two types of rights are provision rights and participation rights.[94]

"Provision rights" are interests of individuals or communities that a state must satisfy, or obligations or duties owed by the state to individuals.[95] These interests and obligations typically relate to fulfilling needs for certain "primary goods" essential for

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provisions.").

91. *See* Thompson, *supra* note 9, at 20 (explaining that if the government was considered a trustee of a public trust, it would have a "responsibility to manage water for the interests of the public and, as a result, [would] hold[] [a] more restricted ownership right").

92. COCHABAMBA DECLARATION, *supra* note 86.

93. For criticisms of the commodification of water resources, see MAUDE BARLOW, BLUE COVENANT: THE GLOBAL WATER CRISIS AND THE COMING BATTLE FOR THE RIGHT TO WATER 58–62, 91–101 (2007), which argues that privatization will never be able to provide water for the poor and that it has been a mistake to attempt to privatize water services. *See also* SHIVA, *supra* note 64, at 15, 27–28, 34–36 ("Market solutions destroy the earth and aggravate inequality. The solution to an ecological crisis is ecological, and the solution for injustice is democracy. Ending the water crisis requires rejuvenating ecological democracy.").

94. *See* Cross, *supra* note 11, at 864 (describing positive and negative rights).

95. *See generally* Hellen Hershkoff, *Positive Rights and State Constitutions: The Limits of Federal Rationality Review*, 112 HARV. L. REV. 1131 (1999).

realizing other rights and responsibilities.[96] Essentially, the government ensures basic access to primary goods because certain personal freedoms are worth little to the least advantaged unless first guaranteed a baseline supply of primary goods (Berlin's "boots before Shakespeare," except in this case, it is "water before freedom of religion").[97] This baseline supply is often called a "minimum core" of a primary good essential to support life and basic human dignity.[98] Governments ensure access to a minimum core of primary goods by means of provision rights. The ESC Covenant's guarantees of access to health care, education, housing, and food are classical formulations of provision rights.[99] Provision rights are utilitarian and consequentialist because the obligation to meet a minimum core of primary goods is aimed at achieving certain outcomes.[100]

Participation rights, on the other hand, are by nature deontological and independent of the state and its desired ends of social good.[101] The essential distinction between participation rights and provision rights is that states guarantee provision rights when that provision serves the general interest, whereas

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96. *See* JOHN RAWLS, A THEORY OF JUSTICE 62 (1971) ("[S]uppose that the basic structure of society distributes certain primary goods, that is, things that every rational man is presumed to want. . . . For simplicity, assume that the chief primary goods at the disposition of society are rights, liberties, and opportunities, and income and wealth.").

97. *Id.*; *supra* note 54 and accompanying text; *see also* Sylvia F. Liu, *American Indian Reserved Water Rights: The Federal Obligation to Protect Tribal Water Resources and Tribal Autonomy*, 25 ENVTL L. 425, 439–40 (1995) (discussing the idea of water as a primary good in the context of the American Indian reserved water rights doctrine).

98. *See* George S. McGraw, *Defining and Defending the Right to Water and Its Minimum Core: Legal Construction and the Role of National Jurisprudence*, 8 LOY. U. CHI. INT'L L. REV. 127, 154–55 (2011) ("Essentially . . . [the minimum core concept] posits that there are degrees of rights fulfillment, and that one of these degrees is a definable, basic threshold—or for our purposes, a minimum *legal* content—for socio-economic rights.").

99. *Supra* note 19 and accompanying text.

100. *See* Randall P. Peerenboom, *Rights, Interests, and the Interest in Rights in China*, 31 STAN. J. INT'L L. 359, 360–61 (1995) ("[Participation rights] are deontological in character, whereas . . . [provision rights] are consequentialist or utilitarian."); William W. Fisher III, *Reconstructing the Fair Use Doctrine*, 101 HARV. L. REV. 1659, 1759 (1988) (arguing for redistribution using positive rights up to a Pareto-optimal point, or "inequality that pays for itself").

101. *See* Peerenboom, *supra* note 100, at 360–61 ("[Participation rights] are deontological in character . . . .").

citizens hold participation rights as a protection against government interference with certain interests except within very limited, prescribed legal boundaries, regardless of the interests of the general citizenry.[102] The CP Covenant's guarantees of freedom of religion, freedom from racial, gender, or ethnic discrimination, freedom of speech, and freedom from arbitrary deprivation of property are classical formulations of participation rights.[103]

Commentators often draw the distinction between the two types of rights as being "freedom to" rights (positive rights) and "freedom from" rights (negative rights).[104] Put differently, provision rights require the government to take action, unless compelling countervailing considerations are demonstrated (for example, impossibility because of limited resources), whereas participation rights proscribe government action, unless compelling countervailing considerations are demonstrated (for example, freedom of speech unless interests of safety outweigh, as in shouting "fire" in a crowded theater).[105] This Article draws the distinction between rights "to" some good or service (provision rights), and rights "in" an institution, resource, or process held in trust and controlled by the state for the benefit of its citizens (participation rights).[106]

These are helpful distinctions, but difficult to clearly define. Even enforcement of provision rights requires the provision of state resources, and the availability of participation rights

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102. *See* DWORKIN, *supra* note 13, at 269 ("A successful claim of right, in the strong sense . . . has this consequence. If someone has a right to something, then it is wrong for the government to deny it to him even though it would be in the general interest to do so.").

103. CP Covenant, *supra* note 15. The distinction between positive rights and negative rights is a difficult one to draw. *See* Cross, *supra* note 11, at 864 (contrasting positive rights, which command government action, with negative rights, which require freedom from government intervention).

104. *See* Cross, *supra* note 11, at 864 (explaining that a positive right is a "claim to something" and a negative right is a "right that something not be done to one").

105. *Supra* note 104 and accompanying text.

106. The difference between these two types of rights is similar to the difference between an individual buying a boat ("You have to give me that boat."), and an individual buying an ownership interest in a company that owns a boat ("I get a say in how that boat is used."). *See* Cross, *supra* note 11, at 864 (providing an overview of positive and negative rights).

requires provision of an institution facilitating participation (courts, agencies, elections, informal stakeholder processes, etc.).[107] As such, for purposes of this Article, the distinction between participation rights and provision rights is a distinction based not solely on the traditional "negative" and "positive" obligations of the state but also between the duties and appropriate remedy for violating the right at issue.[108] Provision rights have substantive duties and remedies, whereas participation rights have procedural duties and remedies.[109] The substantive duty of a provision right is provision of the good or service, and the remedy for the violation of a provision right is provision of the minimum core of goods or services guaranteed by the right.[110] The substantive duty of a participation right is forbearance of state interference with guaranteed freedoms, absent a compelling state interest, and provision of the necessary process to facilitate participation in policy development and enforcement of infringements of freedom.[111] The remedy for the infringement of a participation right is the provision of due process and demonstration of sufficiently compelling countervailing public interest.[112] Where the government cannot demonstrate such a countervailing interest or cannot provide such due process, the government is precluded from interfering with the interest at issue.[113]

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107. *See* Cross, *supra* note 11, at 864–65 (illustrating the difficulty of distinguishing positive and negative rights in the context of the claim that "all rights, including negative ones, require government enforcement").

108. *See, e.g.*, Lawrence Alexander, *The Relationship Between Procedural Due Process and Substantive Constitutional Rights*, 39 U. FLA. L. REV. 323, 332–33 (1987) (illustrating the difficulty in differentiating a constitutionally protected right and a revocable privilege).

109. *Supra* note 104 and accompanying text.

110. *See* Cross, *supra* note 11, at 868 (explaining that a positive right would not exist without a government to provide it); McGraw, *supra* note 98, at 154–55 (framing the right to water as a "positive norm" requiring provision of a "minimum core" of water).

111. *See* Cross, *supra* note 11, at 864–68 (discussing the implications of positive and negative rights and concluding that negative rights require the government to abstain from interfering with those rights).

112. *See id.* at 867–68 (describing the process by which negative rights are provided by the United States Constitution).

113. *See id.* at 876 (arguing that constitutional rights "do not bestow rights upon individuals to take some action but only bestow rights to be free from

C. The Predominant Provision Rights Approach to Water

Scholars, governments, nongovernmental organizations, and water policy advocates have generally framed the right to water, at both the international and domestic level, as a provision right.[114] As such, international and domestic formulations of a right to water typically consider water a compelling interest that governments should progressively provide, subject to available resources, in language similar to that of the 2010 U.N. Resolution.[115] Legal scholars writing in the field have almost universally framed an international human right to water as a provision right.[116] Similar arguments have been echoed in scholarship describing or advocating a provision right to water at the national level.[117]

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certain rules limiting that action").

114. *See, e.g.*, Craig Anthony (Tony) Arnold, *Water Privatization Trends in the United States: Human Rights, National Security, and Public Stewardship*, 33 WM. & MARY ENVTL. L. & POL'Y REV. 785, 836–37 (2009) (explaining that water supply should be held in trust by the government and provided to the population through improved infrastructure); *Implementing the Human Right to Water in the West: Conference Report*, 48 WILLAMETTE L. REV. 1, 43–44 (2011) [hereinafter *Willamette Conference Report*] (concluding that the government has an obligation to provide water to its citizens, if not to every remote area, at least to designated locations where it can be accessed); Montgomery F. Simus & James G. Workman, *The Water Ethic: The Inexorable Birth of a Certain Alienable Right*, 23 TUL. ENVTL. L.J. 439, 471 (2009) (arguing that an informal right to water has existed and should be allowed to grow into a more defined right in the future). *But see* Rhett B. Larson, *Holy Water and Human Rights: Indigenous Peoples' Religious-Rights Claims to Water Resources*, 2 ARIZ. J. ENVTL. L. & POL'Y 81, 95 (2011) (asserting that the right to water can be argued as a liberty right, in the context of religious affiliations with water in many cultures).

115. *Supra* note 6 and accompanying text.

116. *See, e.g.*, *Willamette Conference Report*, *supra* note 114, at 29 ("[T]his conception of the public trust as negative right contrasts with the human right to water which is generally regarded as a positive right, imposing a duty on the government to act in such a manner as to assure access to water and sanitation."); McCaffrey, *supra* note 25, at 7 (arguing that "[a]ccess to adequate amounts of safe, useable fresh water" should be recognized as a right and provided to the population); McGraw, *supra* note 98, at 154–55 (framing the right to water as a "positive norm" requiring provision of a "minimum core" of water.).

117. *See, e.g.*, Vrinda Narain, *Water as a Fundamental Right: A Perspective From India*, 34 VT. L. REV. 917, 923 (2009) ("[I]t might be more effective to articulate the right to water as a positive right rather than as a negative right.").

The normative and descriptive positions taken by legal scholars are largely reflected in domestic law relating to the right to water.[118] Currently, forty-one nations have "enshrined the right to water within their national constitutions, or have framed the right explicitly or implicitly within national legislation."[119] For example, Article 43 of the Constitution of Kenya[120] provides that "[e]very person has the right . . . to clean and safe water in adequate quantities."[121] Article 5 of Indonesia's Law on Water Resources[122] provides that the state guarantees individual access and availability of water for everyone residing within the nation.[123] Article 66(2) of the Constitution of Ecuador[124] recognizes the right to "clean water."[125] In each case, however, the right is subject to progressive realization and available resources.[126] The constitutions of both Uganda and Zambia move even further from the rights rhetoric to the "compelling interest" rhetoric, by framing the public interest in water as a government "objective" or "endeavor," subject to available resources.[127]

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118. *See infra* notes 119–31 (discussing provision and participation rights in water as provided by domestic constitutions, statutes, and judicial opinions).

119. *See The Rights to Water and Sanitation in National Law*, RIGHTTOWATER.INFO (Apr. 8, 2010), http://www.righttowater.info/progress-so-far/national-legislation-on-the-right-to-water (last visited Aug. 28, 2013) (listing forty-one nations that have recognized water rights in constitutions, national laws, executive proclamations, judicial decisions, and proposed legislation) (on file with the Washington and Lee Law Review).

120. CONSTITUTION, art 43(1)(d) (2010) (Kenya).

121. *Id.*

122. Law on Water Resources, No. 7 of 2004 (Indon.), *reprinted in* 2 L. ENV'T & DEV. J. 118, 122 (2006) [hereinafter "Water Resources Law"], http://www.lead-journal.org/content/06118.pdf.

123. *See id.* ("The State guarantees everyone's right to obtain water for their minimum daily basic needs in order to achieve a healthy, clean, and productive life.").

124. CONSTITUTIÓN POLITICA DE LA REPÚBLICA DEL ECUADOR [C.P.] art. 66(2), *available at* http://pdba.georgetown.edu/Constitutions/Ecuador/ecuador08.html#mozTocId64283.

125. *Id.*

126. *See, e.g.*, *id.* arts. 3(1), 11(8) (mandating that the right to water, like all other constitutional rights, "shall be developed progressively" through standards, case law, and public policy).

127. *See* CONSTITUTION OF THE REPUBLIC OF UGANDA (1995) arts. I, XIV(b), http://www.uganda.at/Geschichte/verfassung_der_republik_Uganda_2008.pdf (establishing the right to "clean and safe water" as an "objective" that will "guide" the state in making and implementing policy decisions); CONST. OF ZAMBIA of 1991

Often, nations may lack an express right to water but infer such a right from other express rights on the grounds that the realization of any right depends on provision of a minimum core of primary needs.[128] As noted above, the Supreme Court of India inferred the right to water from other express constitutional rights.[129] A similar approach of judges inferring a provision right to water from other express rights has been arguably observed in Pakistan[130] and Bangladesh.[131]

The right to water under international law is similar to the right in India because, as in India, the right to water under international law is not express but instead must be considered implicit within other express provision rights.[132] For example, the U.N.'s Universal Declaration of Human Rights (HR Declaration) states: "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family."[133] A right to water is arguably implied within the right to a standard

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(as amended by Act No. 18 of 1996) § 111, 112(d), http://www.parliament.gov.zm/downloads/VOLUME%201.pdf (stating that the government "shall endeavor" to provide clean and safe water, but that this policy principle is not "legally enforceable" in any court or tribunal).

128. *See, e.g.*, Monique Passelec-Ross & Karin Buss, *Water Stewardship in the Lower Athabasca River: Is the Alberta Government Paying Attention to Aboriginal Rights to Water?*, 23 J. ENVT'L L. & PRAC. 69, 70 (2011) (discussing how provincial governments in Canada have inferred aboriginal water rights from express constitutional guarantees to a right of subsistence on traditional lands).

129. *See* Chameli Singh v. Uttar Pradesh, A.I.R. 1996 S.C. 1051, 1053 (India) (stating that the right to water is implied by the "right to life enshrined under Article 21" of the Indian Constitution); INDIA CONST. art. 21 ("No person shall be deprived of his life or personal liberty except according to procedure established by law.").

130. *See* McGraw, *supra* note 98, at 176–77 (discussing *General Secretary v. Director*, (1994) SCMR 2061 (Pak.), in which the Pakistani Supreme Court declared that the right to have water free from pollution is essential to life itself).

131. *See id.* at 175 (discussing *Farooque v. Bangladesh* (*Radioactive Milk Powder*), (1996) WP 92/1996 S.C. ¶ 20 (Nepal), in which the Bangladeshi Supreme Court declared that the right to life includes the right to enjoyment of pollution-free water).

132. *See* McCaffrey, *supra* note 25, at 7 (noting that right to water must be inferred from an existing treaty or charter because such a right is not expressly provided by existing international law).

133. Universal Declaration of Human Rights, G.A. Res. 217 (III) A, U.N. Doc. A/RES/217(III) at 76 (Dec. 10, 1948).

of living, because without water there is no living at all.[134] Indeed, on September 30, 2010, the U.N. Human Rights Council (UNHRC) inferred from the HR Declaration that a right to water was "inextricably related to . . . the right to life and human dignity."[135]

Article 11 of the ESC Covenant recognizes a right to an adequate standard of living, health, food, and housing.[136] The U.N. inferred a provision right to water from these guarantees in 2002, under General Comment 15 to the ESC Covenant.[137] The drafters of General Comment 15 draw the right to water from other express provision rights under the ESC Covenant, finding that the right to water is a "prerequisite for the realization of other human rights," and "clearly falls within the category of guarantees essential for securing an adequate standard of living . . . . The right to water is also inextricably related to the right to the highest attainable standard of health . . . and the rights to adequate housing and adequate food."[138] The ESC Covenant, however, requires only that states "take steps . . . to the maximum of [their] available resources, with a view to achieving progressively the full realization of the rights recognized in the [ESC Covenant]."[139]

Some have also argued that the provision right to water has arisen as an independent right based on "customary international

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134. *See* McCaffrey, *supra* note 25, at 8 ("It seems obvious that such a standard of living could not exist without an adequate supply of water suitable for drinking.").

135. Human Rights Council Res. 15/9, Rep. of the Human Rights Council, 15th Sess., Sept. 13–Oct. 14, A/HRC/15/60, at 22–23 (Oct. 31, 2011). The 2010 U.N. Resolution is similarly based on a right to water implied within the positive rights set forth in the ESC Covenant. *See* 2010 U.N. Resolution, *supra* note 6 (referencing General Comment 15 by the UNHRC and the ESC Covenant immediately before recognizing the right to safe and clean drinking water).

136. *See* ESC Covenant, *supra* note 19, at 50 ("The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing . . . .").

137. *See* General Comment 15, *supra* note 26, ¶ 1 (stating that realization of the right to water is a "prerequisite for the realization of other human rights" recognized in the ESC Covenant).

138. *Id*. ¶¶ 1–2.

139. ESC Covenant, *supra* note 19, at 49.

law."[140] "Customary international law" means a "general and consistent practice of states followed by them from a sense of legal obligation to such a degree as to effectively bind states in general."[141] For example, the Dublin Statement, a U.N. document on water management, declares that it is "vital to recognize the basic right of all human beings to have access to clean water and sanitation at an affordable price."[142] However, despite the growing voices favoring an express provision right to water as customary international law, few countries recognize an independent provision right to water; therefore, the right to water has likely not achieved the status of customary international law.[143] As such, to the extent a right to water exists in international law, it is implied by existing provision rights.[144] Such an implied right mirrors the way in which the right to water is framed in domestic constitutions and legal scholarship, as a provision right provided by governments subject to progressive realization and available resources.[145] The nature of the right to

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140. *See* Sara De Vido, *The Right to Water As an International Custom: The Implications in Climate Change Adaptation Measures*, 6 CARBON & CLIMATE L. REV. 221, 224–25 (2012) ("Considering the evolution of State practice, national and international jurisprudence, and the activities of several international bodies, it is possible to affirm that at least the core content of the human right to water . . . has achieved the status of a customary international norm.").

141. RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 102(2) (1987).

142. International Conference on Water and the Environment, Dublin, Ir., Jan. 26–31, 1992, *The Dublin Statement and Report of the Conference*, at 4, U.N. Doc. A/CONF.151/PC/112, Annex I (Mar. 12, 1992) [hereinafter The Dublin Statement], http://docs.watsan.net/Scanned_PDF_Files/Class_Code_7_Conference/71-ICWE92-9739.pdf.

143. *See* Amy Hardberger, *Life, Liberty, and the Pursuit of Water: Evaluating Water as a Human Right and the Duties and Obligations it Creates*, 4 NW. U. J. INT'L HUM. RTS. 331, 354 (2005) ("Although water is not yet an individual right under customary international law, the amount of attention it has received indicates that it is moving in that direction.").

144. *See* De Vido, *supra* note 140, at 361 (arguing that a human right to water is implied by existing provision rights to life and health contained within the ESC Covenant).

145. *See, e.g.*, CONSTITUTIÓN POLITICA DE LA REPÚBLICA DEL ECUADOR [C.P.] arts. 3(1), 11(8), *available at* http://pdba.georgetown.edu/Constitutions/Ecuador/english08.html (establishing the progressive realization rule in Ecuador); *cf.* Wesley A. Cann, Jr., *On the Relationship Between Intellectual Property Rights and the Need of Less-Developed Countries for Access to Pharmaceuticals: Creating A Legal Duty to Supply Under A Theory of Progressive Global Constitutionalism*, 25 U. PA. J. INT'L ECON. L. 755, 843 (2004)

water as an implied right is significant, because evaluation of water policy is thus inherently linked to provision of other goods or services rather than independently evaluated, and the right to water, as implicit rather than explicit, is given lower lexical priority in policy debates.[146]

III. The Limitations of a Provision Right to Water

To the extent the rights framework is employed solely to emphasize the need for water, such a framework is of limited value.[147] The right to water cannot mean only a guarantee of water sufficient to keep a person alive.[148] Every living person already has that. The question then is not whether people have or need enough water to live—that is both obvious and moot. The question is one of knowing the amount, quality, access, affordability, and allocation of water sufficient to achieve some standard of living, and the unique localized social and hydrological conditions affecting how that standard is determined.[149]

(stating that the ESC Covenant guarantees to health and well-being—provision rights from which the right to water is derived—are "subject to progressive realization and available resources").

146. *See* De Vido, *supra* note 140, at 225 (insinuating that the current "fragmented" approach to the right to water is "a consequence of the consideration of the human right to water as dependent [upon] other rights").

147. *See* Brett Hartley & Heather J. Van Meter, *The Human Right to Water: Proposal for A Human Rights-Based Prioritization Approach*, 19 WILLAMETTE J. INT'L L. & DISP. RESOL. 66, 85 (2011) (arguing that if the right to water is predicated on the right to life alone, such a right would be "of little comfort to the millions . . . [with] disease, chronic illness, and shortened life expectancy" caused by *shortages* of potable water).

148. *See id.* (implying that a water rights structure that fails to promote *quality of life* in addition to the *ability to live* does not meet the adequate standard of living mandate enshrined in the ESC Covenant).

149. *See* JOHN E. CRIBBET ET AL., PRINCIPLES OF THE LAW OF PROPERTY 404 (3d ed. 1989) (recognizing that local hydrological conditions will have varying degrees of impact on water rights); Melina Williams, *Privatization and the Human Right to Water: Challenges for the New Century*, 28 MICH. J. INT'L L. 469, 498–500 (2007) (addressing issues of affordability, access, and allocation in an analysis of Bolivia's attempt to uphold the standard of living outlined in General Comment 15 after privatizing water delivery in Cochabamba).

The recent decision in the South Africa's Constitutional Court in *Mazibuko v. City of Johannesburg*[150] illustrates the challenges of relying on a provision right to water to achieve the objective of water policy and meet the interests of citizens.[151] South Africa was one of the first countries to adopt a constitutionally guaranteed right to water.[152] Under Section 27 of the South African Constitution, "[e]veryone has the right to have access to . . . sufficient food and water."[153] Importantly, Section 27 of South Africa's Constitution provides a guarantee conditioned upon "progressive realization" similar to those guarantees under the ESC Covenant and other domestic constitutions discussed above.[154]

The *Mazibuko* case centers on Phiri, a historically black and poor township of over one million residents in the City of Johannesburg with a disproportionately degraded and inadequate water infrastructure.[155] Since 2001, the City has satisfied the constitutional guarantee of access to sufficient water through its Free Basic Water policy, which supplied six kiloliters of water (intended to equal about twenty-five liters per person per day) to each accountholder in Phiri.[156] However, because of leaky

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150. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) (S. Afr.), http://www.saflii.org/za/cases/ZACC/2009/28.pdf.

151. *See id.* at 24 para. 48 (attempting to determine how much water the government must provide in order to meet the provision right to water guaranteed in the South African Constitution).

152. *See* Andrew 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. INT'L L. & COM. REG. 509, 580 (2008) ("South Africa was one of the first nations to explicitly reserve the right to water for its citizens . . . .").

153. S. AFR. CONST., 1996 § 27(1), http://www.info.gov.za/documents/constitution/1996/a108-96.pdf.

154. *See id.* § 27(2) ("The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights."); *supra* notes 126–27 and accompanying text (discussing progressive realization stipulations in the Constitutions of Ecuador, Uganda, and Zambia similar to Article 2(1) of the ESC Covenant).

155. *See Mazibuko*, 2010 (4) SA 1, at 6 para. 10–11 (discussing impoverished conditions in Phiri and the serious degree of corrosion permitted to occur in its water piping between the 1940s and the 1980s).

156. *See id.* at 4 para. 6, 46 para. 91 (stating that the City of Johannesburg introduced its Free Basic Water policy in 2001). The Free Basic Water policy was written to comply with national regulations on the minimum amount of

infrastructure, illegal connections, and unpaid use in excess of the six kiloliter limit, Johannesburg Water distributed about one third of its water supply to Soweto, but only generated one percent of its revenue from Soweto.[157]

To address the problem of water sustainability, the City implemented a new approach in 2004 in Phiri.[158] The City continued to deliver "free basic water" to every household in Phiri, with additional water delivered only when paid for in advance through newly installed prepaid meters.[159] Many Phiri households consumed their entire six kiloliters of free basic water within the first two weeks of the month.[160] Phiri residents filed a lawsuit against the City of Johannesburg, claiming that the

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water necessary to satisfy South Africa's constitutional guarantee of a right to water. *Id.* at 9–11 paras. 19–23. However, the six kiloliter limit applied to each water *connection*; because these connections often served multi-household lots with multiple residents in each household, the end supply of water to each individual resident of a lot was "woefully inadequate." Jackie Dugard, *Civic Action and Legal Mobilisation: The Phiri Water Meters Case*, *in* MOBILISING SOCIAL JUSTICE IN SOUTH AFRICA: PERSPECTIVES FROM RESEARCHERS AND PRACTITIONERS 71, 73 n.4 (Jeff Handmaker & Remko Berkhout eds., 2010).

157. *See Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at 6–7 paras. 11–12, 179 (S. Afr.) (noting that "the rate of payment of municipal bills was less than 10%"); COALITION AGAINST WATER PRIVATISATION ET AL., THE STRUGGLE AGAINST SILENT DISCONNECTIONS: PREPAID METERS AND THE STRUGGLE FOR LIFE IN PHIRI, SOWETO 6 (2004), http://www.citizen.org/documents/Phiri.pdf (listing illegal water connections as a major contributing factor to Johannesburg Water's decision to seek new methods for water distribution in poor South African townships like Phiri).

158. *Mazibuko,* 2010 (4) SA 1, at 8 para. 15 (S. Afr.).

159. *See id.* at 7–8 paras. 13–14 (describing the rationale and implementation of "Operation Gcin'amanzi," which means "to save water"). Johannesburg Water, acting with the City's permission, abandoned its previous deemed consumption flat rate charge system because of rampant payment. *See id.* at 78 para. 139 (stating that the rate of payment for municipal bills under the flat rate system was less than ten percent). Other areas of the City continued to operate under the old flat rate system, or systems, which allowed for water to be purchased on credit. *See id.* at 13 para. 26 (recounting the trial court's finding that the prepaid meter system was discriminatory because Soweto residents were not given the option of installing the kinds of credit meters that were available to white residents throughout Johannesburg).

160. *See, e.g.*, Founding Affidavit of Lindiwe Mazibuko ¶ 101, *Mazibuko v. City of Johannesburg* 2008 (4) All SA 471 (S. Afr.), http://www.wits.ac.za/files/resdac0c995c698402abd0ce5633a7fe9ff.pdf (complaining that the allocated supply has never lasted for an entire month since the prepaid meter was installed in 2004).

City's Free Basic Water policy and the decision to install prepaid water meters were unconstitutional.[161]

The trial court found in favor of the residents of Phiri, holding that the Free Basic Water policy and the prepaid water meter installation violated Section 27 of the South African Constitution, and it ordered that fifty liters per day be established as the new free basic water supply.[162] On appeal, the appellate court lowered the minimum free basic water supply to forty-two liters per person per day.[163] The City then appealed to South Africa's Constitutional Court.[164] The Constitutional Court reversed the lower court rulings and upheld the prepaid water meter installation program and the minimum water amounts established by the City's Free Basic Water policy.[165] The Constitutional Court deferred to the expertise of agencies in establishing the minimum amount of water as a reasonable determination, and held that such technical determinations are not within the role of the judiciary.[166] The Constitutional Court stated that courts are "ill-suited to adjudicate upon issues where Court orders could have multiple social and economic consequences for the community."[167] The *Mazibuko* case illustrates three fundamental challenges of a provision right to

161. *See Mazibuko*, 2010 (4) SA 1, at 4 para. 6 (listing the major legal issues presented by Mazibuko). Mazibuko sought a court declaration that the state provide at least fifty liters per person per day in order to comply with Section 27 of the South African Constitution. *Id.* at 13 para. 26.

162. *See id.* at 13–14 paras. 26–27 (summarizing the trial court's findings).

163. *See id.* at 14–15 para. 28 (stating that the appellate court affirmed the trial court findings of unconstitutionality for the Free Basic Water policy and the prepaid water meter installation).

164. *Id.* at 16 para. 30.

165. *Id.* at 5 para. 9.

166. *See id.* at 30 para. 61 (suggesting instead that such decisions should be made by the executive or the legislature).

167. *Id.* at 27 para. 55 (citation omitted).

water: (1) enforceability;[168] (2) economic sustainability;[169] and (3) ecologic sustainability.[170]

A. The Provision Right to Water and Enforceability

The *Mazibuko* case is an example of the limits of enforcing provision rights.[171] There are serious economic and political forces limiting the capacity of courts to effectively enforce provision rights.[172] Evidence suggests that these obstacles are not unique to the *Mazibuko* case but that such obstacles are common and difficult to overcome wherever and whenever parties seek judicial enforcement of provision rights.[173]

In upholding the City's prepaid meter program, the Constitutional Court noted that, like provision rights in most contexts, South Africa's constitution guaranteed only the "progressive realization" of a right to water.[174] The Constitutional

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168. *See id.* at 28 para. 57 (describing the difficulty of enforcing a claim based on a positive obligation delineated in the South African Constitution).

169. *See id.* at 55 para. 110 (justifying the decision that installing prepaid water meters was constitutional by finding that the meters helped foster economically sustainable provision of basic services as required by Section 152(1)(b) of the South African Constitution).

170. *See id.* at 74 para. 139 (decrying the amount of water wasted by the aging infrastructure and the unsustainable deemed consumption system that predated Operation Gcin'amanzi).

171. *See* McGraw, *supra* note 98, at 198–99 (arguing that the *Mazibuko* Court intentionally limited its own powers to realize and enforce positive socio-economic rights).

172. *See* Cross, *supra* note 11, at 882–88 (stating that "the economics of rights enforcement undermines the effectiveness of any positive right" and that "[c]ourts . . . avoid involving themselves in matters fundamental to the enforcement of positive rights" because of political pressure). Cross is pessimistic about the enforceability of provision rights because of the obstacles litigation costs pose to the poor, who are most likely to assert positive human rights. *Id.* at 880–81. He is also concerned about the political opposition to courts "running everything," which leads to strict legislative and executive checks against judicial enforcement of provision rights. *Id.* at 887–88 (citation omitted).

173. *See id.* at 893–95 (citing empirical data demonstrating the courts have not typically been very active in enforcing provision rights); Hershkoff, *supra* note 95, at 1135 n.10 (referencing the familiar difficulties with judicial enforcement of affirmative duties).

174. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at 19–20 para. 40 (S. Afr.). The court cites Article 2(1) of the ESC Covenant for the proposition

Court held that the City was required only to take reasonable steps to progressively realize the interests in water guaranteed under South Africa's constitution[175] and that the constitution does not create "a self-standing and independent positive right enforceable irrespective" of available resources.[176] Because provision rights are necessarily constrained in their realization by the ability of governments to take "appropriate and effective action," governmental delays in realizing a provision right are easily explained, and that explanation is not easily challenged.[177] The common conditioning of provision rights on progressive realization and available resources makes such rights effectively unenforceable by the judiciary.[178]

The problem of "progressive realization" is also an obstacle to enforcement of a provision right to water under international law.[179] As already noted, to the extent a provision right exists under international law, such a right must be inferred from other express rights under the ESC Covenant.[180] Article 11 of the ESC Covenant recognizes a right to "an adequate standard of living," which implies a right to water, as noted by the U.N. in General Comment 15.[181] The ESC Covenant, however, requires only that states "take steps . . . to the maximum of [their] available resources, with a view to achieving progressively the full realization of the rights recognized in the [ESC Covenant]."[182]

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that the "progressive realization" formulation of positive obligations "applies to most of the social and economic rights entrenched in our Constitution and is consistent with the principles of international law." *Id.*

175. *See id.* at 36 para. 74 (discussing whether the City took the reasonable steps necessary to satisfy the progressive realization standard in Section 27(2) of the South African Constitution and concluding that the city was not unreasonable in its actions).

176. *Id.* at 25 para. 49 (citation omitted).

177. Cross, *supra* note 11, at 876–77. Of course, the "progressive realization" condition could simply be removed, but then courts are left imposing obligations on the state which the state may be unable to meet immediately, because those obligations require installation of costly and complex infrastructure.

178. *See, e.g.*, Cass Sunstein, *Constitutionalism and Secession*, 58 U. CHI. L. REV. 633, 668 (1991) (noting the existence of provision rights in India's constitution, but concluding that such rights are not judicially enforceable).

179. *Infra* notes 180–83 and accompanying text.

180. *Supra* notes 132–35 and accompanying text.

181. *Supra* notes 136–37 and accompanying text.

182. ESC Covenant, *supra* note 19, at 49.

Just as in the *Mazibuko* example, any claims of a right to water implied by the ESC Covenant have the inherent weakness of not being immediately binding upon states, given the latitude of the language of the covenant for states to tailor compliance with covenant obligations to resource availability and progressive realization.[183]

The nature of the judiciary is also a limitation on enforceability of a provision right to water.[184] The Constitutional Court in *Mazibuko* upheld the City's established amount and reversed the lower court rulings based on what the Constitutional Court called "an understanding of the proper role of courts in our constitutional democracy."[185] The Constitutional Court stated that

> [i]t is 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 realization of the right. This is a matter, in the first place, for the legislature and executive, the institutions of government best placed to investigate social conditions in the light of available budgets and to determine what targets are achievable in relation to social and economic rights. Indeed, it is desirable as a matter of democratic accountability that they should do so for it is their programs and promises that are subjected to democratic popular choice.[186]

The different opinions of what constitutes "sufficient water" of the three courts involved in adjudicating *Mazibuko* suggests

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183. *See Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at 20 para. 40 n.31 (S. Afr.) (discussing the slow-developing nature of the progressive realization concept outlined in Article 2(1) of the ESC Covenant); Lisa J. Laplante, *On the Indivisibility of Rights: Truth Commissions, Reparations, and the Right to Development*, 10 YALE HUM. RTS. & DEV. L.J. 141, 149 (2007) (confirming that Article 2(1) "make[s] [other ESC Covenant] provisions not immediately binding").

184. *Infra* notes 186–87 and accompanying text.

185. *Mazibuko*, 2010 (4) SA 1, at 28 para. 57. In summarizing Lawrence Sager's similar conclusions relating to the positive human right to health care, Frank Cross noted that "[g]iven these complexities, it is unclear that the judiciary is the best branch for making wise decisions about positive rights, even when acting sincerely." Cross, *supra* note 11, at 905.

186. *Mazibuko*, 2010 (4) SA 1, at 30 para. 61.

that courts often are not well equipped for making the kind of technical determinations required in water management.[187]

Executive agencies or legislatures could take two different approaches to more effectively guide judicial enforcement of provision rights, each equally problematic. The first would be to establish a broad, guiding principle in the formulation of the right and allow courts to enforce that principle on a case-by-case basis—for example, a simple guarantee of "sufficient water." However, such ambiguity raises serious challenges in terms of enforcement.[188] Where courts lack information and expertise relative to government budgets and revenue, the judicial enforcement of provision rights requiring government expenditures can create serious fiscal problems.[189] Where courts lack information and expertise regarding local conditions, including population density, consumption patterns, and demographics, judicial enforcement of provision rights may prove inadequate or overreaching.[190]

To avoid such indeterminacy, legislatures may take a second approach by quantifying the amount and quality of water

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187. *See* Cross, *supra* note 11, at 902 (suggesting that, when confronted with the opportunity, judges will simply use "positive rights to advance their ideological policy preferences" rather than making pragmatic, policy-oriented decisions). Mark Tushnet notes that a "judge is rather more likely to pick the theory that points where he or she wants to go anyway, than to pick a theory and reluctantly find that it leads to conclusions he or she would have preferred to avoid." MARK TUSHNET, TAKING THE CONSTITUTION AWAY FROM THE COURTS 155 (1999). Cross points out that empirically establishing the prevalence of ideological or political judicial decision-making is difficult, given that "[m]ost judges would sooner admit to grand larceny than confess a political interest or motivation." Cross, *supra* note 11, at 906 (quoting ROBERT A. CARP & RONALD STIDHAM, JUDICIAL PROCESS IN AMERICA 264 (1990) (quoting DONALD DALE JACKSON, JUDGES 18 (1974))) (internal quotation marks omitted).

188. *See* Cross, *supra* note 11, at 901 ("While all language is somewhat ambiguous, positive rights . . . suffer from particular indeterminacy. The reason for this indeterminacy is that such rights are consequentialist, requiring the judiciary to create a program that achieves a given result.").

189. *See* PATRICK MONAHAN, POLITICS AND THE CONSTITUTION: THE CHARTER, FEDERALISM AND THE SUPREME COURT OF CANADA 126 (1987) (arguing that if courts were to enforce provision rights, they would become embroiled in the same budgetary and tax debates that the concept of judicial review was designed to avoid in the first place).

190. *See* Cross, *supra* note 11, at 901 (arguing that, when faced with "imperfect information" about specific conditions, judges "are likely to do very little to promote the ends commanded by [provision] rights").

required to meet a provision right. As noted above, the City of Johannesburg, South Africa, attempted such an approach by establishing the six kiloliters per month per household standard.[191] This standard, however, proved unworkable, partially because the government did not understand that households were much larger in Phiri than in other townships in the City.[192] As such, in order to avoid the challenge of indeterminacy in judicial enforcement, codification of the provision right to water often forces a rigid legal establishment of minimum standards. Such rigid standards may not prove workable as conditions differ both temporally and spatially. To the extent that courts evaluate these minimum standards, they are left making ad hoc determinations of the viability of these minimum standards under different localized conditions.[193] As with fleshing out vague and indeterminate guarantees of "sufficient" water, courts are often left making technical determinations for which they are ill-suited even when a minimum standard is established.[194]

Establishing causation also poses an obstacle to judicial enforcement of a provision right to water. Droughts, floods, and waterborne epidemics impact human rights but are not necessarily human rights violations.[195] The difficulty of establishing the government as the "cause," and therefore the

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191. *See supra* notes 156–59 and accompanying text (explaining how the City continued to offer a minimum supply of six kiloliters in Phiri and implemented a meter system for additional water).

192. *See supra* note 160 and accompanying text (noting how quickly Phiri households consumed the water provided by the government).

193. *See supra* note 167 and accompanying text (noting that the South African Constitutional Court has previously expressed the difficulties associated with deciding cases that have broad social and economic consequences); Cross, *supra* note 11, at 903–05 (illustrating the complexities associated with judicial enforcement of positive rights such as "a minimal level of subsistence").

194. *See* Christine A. Klein & Ling-Yee Huang, *Cultural Norms as a Source of Law: The Example of Bottled Water*, 30 CARDOZO L. REV. 507, 535 (2008) (arguing that state legislatures in the United States have failed to adequately update the "law governing the initial appropriation of water resources" and that courts deciding cases concerning bottled water "necessarily produc[e] reactive and fact-specific decisions, rather than comprehensive legislative guidance").

195. *See* Bodanksy, *supra* note 80, at 519 ("Human rights are 'human' by virtue of not only their victims but also their perpetrators. And they represent human rights 'violations' only if there is some identifiable duty that some identifiable duty-holder has breached.").

liable party, of a failure to adequately provide sufficient water, when water availability is influenced by global climate patterns and other factors outside of any government's control,[196] limits the enforceability of a provision right to water.[197] While droughts, floods, or epidemics are often partially attributable to a failure of governance, courts are nevertheless incapable of evaluating where a natural disaster ends and governance failure begins in assessing causation,[198] and thus enforcing a provision right to water.

As already noted, courts are ill-equipped to adjudicate and enforce a provision right to water, as typically formulated.[199] Similarly, those citizens most likely to bring an action to enforce a provision right to water—the economically or socially disenfranchised—typically lack the means to effectively assert that right.[200] Enforcement of rights requires resources just as

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196. *See, e.g.*, Joseph W. Dellapenna, *Climate Disruption, the Washington Consensus, and Water Law Reform*, 81 TEMP. L. REV. 383, 383–89 (2008) (explaining that "vastly altered precipitation patterns" resulting from global climate change affect the "total availability of water").

197. Eric A. Posner, *Climate Change and International Human Rights Litigation: A Critical Appraisal*, 155 U. PA. L. REV. 1925, 1934 (2007)

> It would be impossible for a victim of global warming to show that one particular corporation or factory caused his injury. Any theory would need to allocate liability on the basis of market share of some other proxy for degree of responsibility, and although American courts sometimes do this, the difficulties of using such theories for global warming are considerable. *Id.*

198. *See id*. (noting that a victim of global warming would have to rely on a "theory . . . allocat[ing] liability on the basis of . . . [a] proxy for degree of responsibility, and although American courts sometimes do this, the difficulties of using such theories for global warming are considerable" (citation omitted)); Mark Pelling, *Disaster Risk and Development Planning: The Case for Integration*, INT'L DEV. PLANNING REV., Dec. 2003, at i–ix (discussing the challenges of assessing how governmental failures during the development planning phase expose areas to heightened risk in the event of natural disasters).

199. *Supra* notes 184–94 and accompanying text. The political ideology of judges can also skew outcomes in some judicial systems, either against conservation measures like water pricing or against efforts to improve distribution equity, including water subsidies. *See supra* note 187 and accompanying text (describing the possible correlation between political ideology and judicial decision making).

200. *See* CHRISTOPHER E. SMITH, COURTS AND THE POOR 5 (1991) (introducing the general assertion that those in poverty often "lack the necessary disposable income to pay for attorneys' fees, litigation expenses, and other costs associated

much as the realization of rights. A provision right must be developed and implemented, often through litigation.[201] When the parties most interested in the provision right lack resources to litigate, or when "opposing groups with greater resources can engage in strategic litigation and settlement to avoid significant precedents," such a right is unlikely to be fully realized.[202]

The challenge of judicial enforcement of a provision right to water is all the more complicated under international law. In addition to the problems of indeterminacy, progressive realization, and limited resources, international law typically only applies to disputes between states.[203] As noted above, to the extent a provision right to water exists under international law, it must be inferred from other express provision rights under the ESC Covenant.[204] However, unlike the CP Covenant, the ESC Covenant's Optional Protocol is not yet binding, as an insufficient number of states have acceded to the Optional Protocol.[205] Given

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with participation in the judicial process"). *But see* Mark A. Graber, *The Clintonification of American Law: Abortion, Welfare, and Liberal Constitutional Theory*, 58 OHIO ST. L.J. 731, 787 (1997) (noting that "organizers of poor people's movements believe that the litigation campaigns of the 1960s helped numerous people receive aid or improved benefits").

201. *See* Cross, *supra* note 11, at 880 ("Rights do not enforce themselves. They require judicial decisions interpreting and enforcing their terms. Those decisions in turn require that a case or controversy come before the courts.").

202. *Id.* at 881–83. There are ways to ameliorate this problem, such as attorney's fee provision requirements and public service attorneys. *See, e.g.*, Allen K. Yu, *Enhancing Legal Aid Access Through an Open Source Commons Model*, 20 HARV. J.L. & TECH. 373, 384–85 (2007) (advocating for a virtual "legal aid commons" through which public service practitioners could pool resources to more efficiently serve indigent clients).

203. *See* JAVAID REHMAN, INTERNATIONAL HUMAN RIGHTS LAW 28–71 (2d ed. 2010) (outlining various mechanisms created by the United Nations for the protection of human rights, and noting the limited circumstances where claims can be brought before international tribunals by non-state parties).

204. *See* ESC Covenant, *supra* note 19, at Art. 11 ("The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family . . . and to the continuous improvement of living conditions."); General Comment 15, *supra* note 26, ¶ 8 (discussing states' obligations to "ensure that natural water resources are protected from contamination").

205. *See* ESC Covenant, *supra* note 19, at 50–51 (stating that parties to the ESC Covenant "recognize the right of everyone to an adequate standard of living . . . including adequate food," but not expressly stating that parties recognize a right to water); General Comment 15, *supra* note 26, ¶ 3 (asserting that the ESC Covenant provides a right to water because the right "clearly falls

the lack of a binding Optional Protocol, the ESC Covenant lacks adjudicative processes and enforcement mechanisms, making it "normatively and jurisprudentially underdeveloped compared to the [CP Covenant]."[206]

Courts are limited in their capacity to enforce provision rights because the typical formulation of such rights raises the challenges of indeterminacy or rigidity,[207] establishing causation,[208] and satisfying the condition of "progressive realization."[209] Just because adequate and affordable water for all is an indisputable "good" does not mean that a judicially enforceable right to such water is also "good." This is because the right to water is bound to the ability of the government to provide that good sustainably and effectively and the capacity of citizens to police and enforce that right.[210]

B. The Provision Right to Water and Economic Sustainability

In addition to problems of enforceability, which are typical of provision rights in general, the provision right to water raises challenges of economic sustainability. Water is different than the objects of other provision rights regimes because treating water as an economic commodity has always been problematic. Adam Smith famously wrote of the "water–diamond paradox," noting that water has a high use value but low exchange value, whereas a diamond has a low use value but high exchange value.[211] The

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within the category of guarantees essential for securing an adequate standard of living" and is "inextricably related to the right to the highest attainable standard of health").

206. SARAH JOSEPH, JENNY SCHULTZ & MELISSA CASTAN, THE INTERNATIONAL COVENANT ON CIVIL AND POLITICAL RIGHTS: CASES, MATERIALS, AND COMMENTARY 163 (2d ed. 2004); *see also* Optional Protocol to the International Covenant on Economic, Social, and Cultural Rights, G.A. Res. A/RES/63/117 (Dec. 10, 2008) [hereinafter Optional Protocol to the CP Covenant].

207. *Supra* notes 184–94 and accompanying text.

208. *Supra* notes 195–98 and accompanying text.

209. *Supra* notes 179–86 and accompanying text.

210. *See* Cross, *supra* note 11, at 877 (arguing that "effective rights enforcement requires plaintiffs with ability and resources").

211. ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 28 (Edwin Cannan ed., Modern Library ed. 1965) (1776). Plato framed the issued somewhat differently. *See* PLATO, *Euthydemus*, *in*, PLATO:

water–diamond paradox illustrates the difficulty of effectively valuing a resource of infinite use value, but limited exchange value.[212] The price of water, influenced by actual or perceived notions of scarcity, does not accurately reflect the true value of water.[213] Water is thus undervalued because consumers inaccurately perceive it has low production costs and greater supply than demand. This public perception influences political actors who set low water rates for water utilities, which are

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COMPLETE WORKS 708, 743 (John M. Cooper ed., Rosamond Kent Sprague trans., Hackett Publ'g Co. 1997) ("For it is the rare thing . . . which is the precious one, and water is cheapest, even thoughg . . . it is the best." (citation omitted)). For a modern critique of the classic framing of the concept, see Michael V. White, *Doctoring Adam Smith: The Fable of the Diamonds and Water Paradox*, 34 HIST. POL. ECON. 659 (2002), arguing that Smith's failure to employ a marginal utility analysis prevented him from solving the "paradox."

212. *See* W.M. Hanemann, *The Economic Conception of Water*, *in* WATER CRISIS: MYTH OR REALITY? MARCELINO BOTIN WATER FORUM 2004, at 61 (Peter P. Rogers et al. eds., 2006) (analyzing different economic approaches to the valuation of water in light of its distinct features as an economic commodity). Water is unique as an economic commodity for reasons other than its relatively low exchange value compared to its use value. Water has unique spiritual and cultural meaning, which makes it less easily analyzed in accordance with the "rational actor" of classical economics. *See* VERONICA STRANG, THE MEANING OF WATER 213 (2004) ("The most central themes of meaning—water as the essence of life, as the substance of social and spiritual being, as a matter of life and death—are clearly integral to assessments of its quality."). Water is unevenly distributed across time and space, sometimes far from population centers, and the climatic influence on its variability unpredictable, particularly with global climate change. *See* Hanemann, *supra*, at 72–74 (explaining how water's "mobility" and "variability" complicate the matching of supply and demand). As of 2004, "six countries—Brazil, Russia, Canada, Indonesia, China, and Columbia—account for half of the world's total renewable supply of freshwater." *Id.* at 73 (citation omitted). In California, two-thirds of the state's population lives in the south, which receives less than 10% of the state's total precipitation, and 80% of that precipitation occurs between October and March, while three quarters of the water use occurs between April and September. *Id.* (citation omitted). This makes water transport and planning costly, and water provision and pricing as inherently "unequal" as its distribution, with variability and distance from population requiring costly infrastructure projects for storage and transportation, not to mention treatment. *See id.* at 74–76 (describing the challenges associated with transporting and sanitizing water). Water is also both a private good (for example, bottled water) and a public good (for example, in situ water uses like fishing or swimming). *Id.* at 70–72.

213. *See* Hanemann, *supra* note 212, at 76 (explaining how "the prices which most users pay for water reflect, at best, its physical supply cost and *not its scarcity value*").

regulated as natural monopolies.[214] The unique challenge of pricing water and recovery costs of water treatment and delivery can be aggravated by a provision right to water.

This aggravation results because the provision right to water is typically formulated in a way that either ignores, or is hostile to, the idea of water as a valuable commodity requiring expensive infrastructure to fully develop.[215] For example, some have argued that the full cost recovery and water pricing is inconsistent with the idea of a right to water.[216] They argue that "[i]nstead of commodifying water even further, we need to recover it by treating it as part of the commons and by strengthening community participation in water management."[217]

Such a formulation of the provision right to water is counterproductive for three primary reasons. First, many countries are reluctant to recognize any right to water because they are concerned that a "[provision right] to water may mean free provision of clean water . . . which they simply cannot afford" without recovering costs from consumers.[218] As such,

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214. *See id.* at 77–78 (asserting that there is a tendency to underprice water in the United States because after a major water system is put in place "water agencies are often politically locked into a regime of low water prices focused narrowly on the recovery of the historical cost of construction").

215. *See* The Dublin Statement, *supra* note 142, at 4 (noting inefficient use of water and pointing out that the resource "has an economic value in all its competing uses and should be recognized as an economic good"). "[I]t is vital to recognize . . . the basic right of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource." *Id.*

216. *See* Bluemel, *supra* note 30, at 963–65 (explaining how "[t]reating water as an economic good without limitation as is done under the principle of full cost recovery can lead to inequities").

217. MAUDE BARLOW & TONY CLARKE, BLUE GOLD: THE FIGHT TO STOP THE CORPORATE THEFT OF THE WORLD'S WATER 210 (2002); *see also* SHIVA, *supra* note 64, at ix–x (classifying a contemporary "clash of . . . two water cultures" as between "a culture that sees water as sacred and treats its provision as a duty for the preservation of life and another that sees water as a commodity, and its ownership and trade as fundamental corporate rights"). Shiva contends: "The culture of commodification is at war with diverse cultures of sharing, of receiving and giving water as a free gift." *Id.* at x.

218. Asit K. Biswas, *Water as a Human Right in the MENA Region: Challenges and Opportunities*, 23 INT'L J. WATER RESOURCES DEV. 209, 215 (2007) ("Since [a provision right to water] simply cannot be achieved within the foreseeable future, these countries prefer not to recognize this concept until

formulations of a provision right to water hostile to cost recovery and appropriate pricing often discourage states from applying a rights framework to their water policy because they are understandably reluctant to assume obligations that they are unable to meet.[219]

Second, where a provision right to water requires piped delivery to the point of use of high-quality-treated water at low or no cost, lack of cost recovery results in degraded treatment and delivery infrastructure and, ultimately, inadequate delivery of poor-quality water.[220] There is a relationship between the "economic sustainability" of water provision, including consistent delivery and water quality, and the "recovery of costs through . . . [consumer] tariffs that are equitably assigned based on ability-to-pay."[221] The challenges faced by India, Bolivia, and South Africa discussed above each illustrate how a provision rights approach to water may lead to a failure to properly price water and fully recover costs and ultimately undermine the rationales behind a right to water.

Third, where the provision right to water precludes or discourages cost recovery and water pricing, it also discourages needed investment in water infrastructure.[222] The capital

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their responsibilities and accountabilities are clarified, as well as those of the consumers.").

219. *See* Stephen C. McCaffrey & Kate J. Neville, *Small Capacity and Big Responsibilities: Financial and Legal Implications of a Human Right to Water for Developing Countries*, 21 GEO. INT'L ENVTL. L. REV. 679, 685 (2009) (observing that many countries party to the ESC Covenant "simply do not have the financial and capacity-related resources to implement the items identified as core obligations in relation to the right to water"); Biswas, *supra* note 218, at 215 (stating that some countries disfavor recognizing a provision right to water because they are "unsure of the legal implications if they approve the overall philosophy").

220. *Cf.* James Salzman, *Thirst: A Short History of Drinking Water* 18 YALE J.L. & HUMAN. 94, 115 (2006) ("[T]he fact that the very poor do pay for water, and pay quite a bit in relative terms, suggested that they both can and will pay for piped water. Thus the principle of 'full cost recovery'—charging a price to cover costs and profit—has seemed both possible and desirable." (citation omitted)).

221. Jeffry S. Wade, *Privatization and the Future of Water Services*, 20 FLA. J. INT'L L. (SPECIAL ISSUE) 179, 195–96 (2008).

222. In 2000 the United Nations adopted its "Millennium Development Goals" (MDGs), which included the goal "to halve, by the year 2015, . . . the proportion of people who are unable to reach or to afford safe drinking water."

investment needed for adequate water and sanitation infrastructure over the next twenty years exceeds $100 billion per year, with regions in the most need least able to absorb those costs.[223] Much of the growing challenge of global water stress can be attributed to a dramatic shortfall in necessary capital to fund improvements in water infrastructure.[224] It is simply not possible to meaningfully implement a right to water without dramatic increases in capital expenditures in water infrastructure.[225] Such

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United Nations Millennium Declaration, G.A. Res. 55/2, ¶ 19, U.N. Doc. A/RES/55/2 (Sept. 18, 2000). In tandem with these "lofty expectations," the ESC Covenant "places at minimum a moral responsibility on wealthy nations and international financial institutions for seeing that [the MDGs] are fulfilled." McCaffrey & Neville, *supra* note 219, at 685. Framing the solution in such a manner may have left some countries in an untenable position: they were discouraged from investing on their own and now are unable to rely on wealthier nations as the ESC Covenant originally envisioned given "today's economic and financial climate." *See id.* (describing how the high demands of the MDGs and the ESC Covenant have put significant pressure on state parties).

223. *See* Salzman, *supra* note 220, at 115 (observing in 2006 that the capital investment needed for water and sanitation infrastructure approached $100 billion per year over the next twenty-five years and that "the weak financial resources of developing country governments prevent them from absorbing the costs of water provision upgrades" (citation omitted)).

224. *See* Thomas M. Kerr, *Supplying Water Infrastructure to Developing Countries via Private Sector Project Financing*, 8 GEO. INT'L ENVTL. L. REV. 91, 94–95 (1995) (explaining how "[t]raditional sources of funding for [water] infrastructure have not met the critical needs of developing countries"); CAMDESSUS REPORT, *supra* note 37, at 1 (asserting that water must be treated as an economic good and investment sources tapped more efficiently to tackle funding deficits). Investments of at least $100 billion annually would have been required to achieve the MDGs when they were originally proposed. *See id.* (noting that the World Water Council in 2000 presented a report suggesting that meeting water goals required "additional annual investments of about $100 billion"). Africa has 38% of its population unserved by safe water, Asia has 19% (52% without access to sanitation services), and Latin America and the Caribbean have 15% without access to safe water (22% without sanitation services). *Id.* at 5. The western United States and Ethiopia have roughly similar climates and hydrologic conditions, yet because of investment in infrastructure, the western United States has 5,000 cubic meters worth of water storage per person, while Ethiopia has only 50 cubic meters. *Id.* In 2003, the annual shortfall of needed capital was estimated to be between $10 and $32 billion, with population growth in developing countries far outstripping efforts to make up lost ground. *See id.* at 3 (noting that, depending on the standards used, the extra investment required is $10 billion on the low end and $17 to $32 billion on the high end (citation omitted)).

225. *See* Meera Mehta, Thomas Fugelsnes & Kameel Virjee, *Financing the Millennium Development Goals for Water and Sanitation: What Will It Take?*, 21 INT'L J. WATER RESOURCES DEV. 239 (2005) (examining whether African

dramatic increases will not come unless there is support for effective water pricing and full cost recovery.[226]

Where the right to water is framed as a right to water "free of economic encumbrances,"[227] such a right is counterproductive to the development and expansion of affordable clean water supplies for all. The challenge presented in formulating a right to water is to meet the purpose of such a right—protecting the disadvantaged—while at the same time ensuring that water provision is economically sustainable by treating water as a valuable and often scarce resource.[228] The recent World Water Commission strongly advocated for full cost pricing of water services, noting that "the single most immediate and important measure that we can recommend is the systematic adoption of full cost pricing for water services."[229] The concern, however, is the impact full cost pricing of water will have on the poor in developing countries.[230]

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countries can meet the MDGs given "large funding gaps"). See Briscoe, *supra* note 37, at 459, for an examination of different water infrastructure financing mechanisms.

226. *See* CAMDESSUS REPORT, *supra* note 37, at 13 ("Sustainable financing for water systems will require greatly improved cost recovery from their users and increased management efficiency."); Mehta et al., *supra* note 225, at 239–40 (arguing that African countries "will need to implement cost recovery policies" in attempting to reach the MDGs). Water infrastructure is uniquely capital intensive. CAMDESSUS REPORT, *supra* note 37, at 10. In the United States, "the ratio of capital investment to revenue is twice as high in water as in natural gas, and 70% higher than electricity and telecommunications." *Id.* (internal citation omitted).

227. *See, e.g.*, Hardberger, *supra* note 143, at 349 (describing the "basic premise" of General Comment 15 as providing an unqualified right to water); BARLOW, *supra* note 93, at 168 (asserting that General Comment 15 is "an authoritative interpretation that water is a right").

228. *See* Savenije & van der Zaag, *supra* note 49, at 98–104 (arguing that water pricing should serve the purpose of financial sustainability through cost recovery with equity considerations achieved through increasing block tariffs).

229. WORLD WATER COMM., A WATER SECURE WORLD 33 (2000); *see also* Peter Rogers, Radhika de Silva & Ramesh Bhatia, *Water is an Economic Good: How to Use Prices to Promote Equity, Efficiency, and Sustainability*, 4 WATER POL'Y 1, 1–17 (2002) ("We argue in this paper that the conventional wisdom is incorrect—increasing prices can improve equity. Higher water rates allow utilities to extend services to those currently not served and those currently forced to purchase water from vendors at very high prices.").

230. *See* Shelley Ross Saxer, *The Fluid Nature of Property Rights in Water*, 21 DUKE ENVTL. L. & POL'Y 49, 109–10 (2010) (observing that some developing countries fear that expanded privatization of water infrastructure with the aid

The poor in developing countries often pay up to twenty-five times more for water from private water vendors than those who have access to a regular tap supply.[231] The charges imposed by water vendors are not only evidence of the inequity resulting from certain water policies but are also evidence that expanding access to tapped and treated water can reduce expenditures on water by the poor. However, such expansion requires investment in infrastructure. When infrastructure for delivery and treatment go unfunded because of a failure to generate revenue and recover costs, water delivery becomes inconsistent, water quality decreases, and the poor suffer most.[232] An effective cost-recovery mechanism encourages capital investments and facilitates lending for start-up costs on water treatment and distribution infrastructure by protecting lenders' expectations of repayment and investors' returns, and ensures sufficient revenues for maintenance and improvements. Where a provision right to water is framed in such a way as to interfere with full cost recovery and appropriate water pricing, the right is counterproductive to its presumed end of protecting the economically disadvantaged.

Two counterarguments could be laid against policies directed at full cost recovery and water pricing. The first is that large general governmental subsidies allow for payment of water services and infrastructure maintenance and upgrades without requiring consumers to pay water tariffs. An alternative

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of foreign corporations would subject the "poor . . . [to] the adverse impact of high prices and service cut-offs" (citation omitted)).

231. ROUSE, *supra* note 71, at 16, 47; *see also* Sudhirendar Sharma, *Watermarkets Exclude the Poor*, *in* THE VALUE OF NATURE: ECOLOGICAL POLITICS IN INDIA 141, 145 (Smitu Kothari, Imtiaz Ahmad & Helmut Reifeld eds., 2003) ("World Bank sponsored studies indicate that urban poor already pay five times the municipal rate for water in Abidjan, Cote d'Ivoire; 25 times more in Dhaka, Bangladesh; and 40 times more in Cairo, Egypt.").

232. *See* ARTHUR C. MCINTOSH, ASIAN WATER SUPPLIES: REACHING THE URBAN POOR 35 (2003) ("Water and poverty are linked by private operators with concessions promising to bring investment funds to the table to improve coverage, which they have not done, and water and poverty are linked by the poor suffering as a consequence." (emphasis in original)). One of the proposed strategies to combat such problems is to "[d]evelop mechanisms for cost recovery that provide appropriate incentives to achieve stated policy objectives: for example, with regard to subsidy and financial performance." *Id.* at 69 (emphasis omitted).

approach to privatization of water services and infrastructure to achieve effective cost recovery is public financing of water infrastructure and services through taxation. Advocacy for the provision right to water is often coupled with arguments in favor of large general water subsidies as a means of ensuring expanded access and maintenance of water infrastructure to poor communities and avoiding rate increases often associated with a private water sector.[233] General water subsidies in developing countries are "motivated predominantly by social objectives," including ensuring water provision to the poor, under the assumption that the poor cannot afford to pay for piped, treated water.[234]

Currently, cost recovery of drinking water services in developing countries is about 35% on average, with water prices "set at a fraction of the marginal costs of supply."[235] The fiscal burden of underpricing water in developing countries can be conservatively estimated at $13 billion per annum, with total subsidies for drinking water in developing countries reaching in excess of $45 billion per year.[236] As already noted above, empirical evidence on the price paid by the poor to water vendors suggests that the poor would be better able to afford effectively priced tapped water than prices they often pay to vendors in areas where publicly financed water provision is absent, unreliable, or unsafe.[237]

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233. *See* Elizabeth Burleson, *Emerging Law Addressing Climate Change and Water*, 5 ENVTL. & ENERGY L. & POL'Y J. 489, 496–99 (2010) (advocating for continued public participation in water management, including "sensible subsidies" (citation omitted)); Jennifer Naegele, *What Is Wrong with Full-Fledged Water Privatization?*, 6 J.L. & SOC. CHALLENGES 99, 100–01 (2004) (arguing for public management of water systems and asserting that after privatization, "[p]oor and rural communities are often left in a worse position than before privatization because they can no longer afford the sharply increased rates and are sometimes cut off from service altogether").

234. André de Moor & Cees van Beers, *The Perversity of Government Subsidies for Energy and Water*, *in* GREENING THE BUDGET: BUDGETARY POLICIES FOR ENVIRONMENTAL IMPROVEMENT 24, 32–38 (J. Peter Clinch et al. eds., 2002).

235. *Id*. at 36.

236. *Id*. at 36–37.

237. *See id.* at 39 (concluding that "[r]eforming current water-pricing practices will . . . generate the necessary resources to expand public water services, while governments and banking institutions could then provide credit facilities to low-income groups to safeguard an easy access to public drinking water"); ROUSE, *supra* note 71, at 47–49 (offering various approaches to

The challenge for a publicly financed, general subsidy approach to water provision is that regulators subject to political pressure set water rates.[238] As such, regulators keep rates low, if charged or collected at all, with the water sector receiving large general subsidies to offset lack of cost recovery.[239] As will be discussed in more detail below, large general subsidies and low rates and collection result in significant waste of water resources because there is no incentive for conservation.[240] Furthermore, public financing of the water sector has demonstrated costs associated with waste and inefficiency. Furthermore, general subsidies for drinking water favor the rich, as the rich are more typically connected to public water systems.[241]

Additionally, general subsidies interfere with integrated water resource management (IWRM). IWRM is a process requiring coordinated development and management of water across different sectors and their various uses of water to "equitably maximize economic and social welfare without compromising sustainability and environmental quality."[242]

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improving the valuation of water so as to assist the poor).

238. *See* Darwin C. Hall, *Public Choice and Water Rate Design*, *in* THE POLITICAL ECONOMY OF WATER PRICING REFORMS 189, 189–212 (Ariel Dinar ed. 2000) (discussing how the Los Angeles Blue Ribbon Committee on Water Rates, appointed by Mayor Tom Bradley in the early 1990s after an extended drought, evaluated various models and policy choices for setting water rates).

239. *See* Ariel Dinar, *Political Economy of Water Pricing Reforms*, *in* THE POLITICAL ECONOMY OF WATER PRICING REFORMS 1, 7 (Ariel Dinar ed. 2000) (noting that "[p]ricing reforms are often complicated by financial crises and low cost recovery of the investment in the water system" and that governments must thus "subsidize the budgets of the irrigation departments").

240. *See* Thompson, *supra* note 9, at 24–25 (noting that the United States has reduced water subsidies in an effort to improve water valuation and other nations have sought to "to charge urban residents the full cost of delivered water"). *See generally* NORMAN MYERS & JENNIFER KENT, PERVERSE SUBSIDIES: HOW TAX DOLLARS CAN UNDERCUT THE ENVIRONMENT AND THE ECONOMY (Island Press 2001) (1997) (exploring the ill effects of certain subsidies on various sectors, including water); Glennon, *supra* note 40, at 1882–84 (advocating for the elimination of general subsidies in the United States water sector to "gain people's attention about their water use through their pocketbooks" and noting that general water subsidies lead to the price of water being "ridiculously low").

241. *See* ROUSE, *supra* note 71, at 47 ("Most commonly, there are general subsidies which give most benefit to the 'rich', but which are generally insufficient for sustainability, with the result that the service declines and the necessary extensions to distribution systems to serve the poor are not funded.").

242. GLOBAL WATER PARTNERSHIP, TAC BACKGROUND PAPERS NO. 4:

IWRM is broadly recognized as the prevailing paradigm for water governance and management.[243] Effective IWRM requires that water revenues and expenditures be integrated in order to monitor nonrevenue water resulting from illegal connections or leaks, and to evaluate water utility performance.[244] General subsidies, along with ineffective water pricing and failure to achieve full cost recovery, "hamper expanding and improving the public water system because water companies lack the necessary financial resources to do so."[245]

The second argument against policies favoring full cost recovery and water pricing is based on concerns about the risks associated with privatization of water resources. Concerns over cost recovery, pricing, and capital investment in infrastructure are often conflated with advocacy for water resource and infrastructure privatization. Privatization of water services, supply, and infrastructure is a global trend that has created challenges in many nations, including Bolivia, as illustrated above.[246] Privatization is advocated on the one hand as a way of facilitating access to capital and technical expertise, promoting efficiency, reducing costs through competitive bidding, expanding

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INTEGRATED WATER RESOURCE MANAGEMENT 64 (2000).

243. *See* Barton H. Thompson, Jr., *A Federal Act to Promote Integrated Water Management: Is the CZMA a Useful Model?*, 42 ENVTL. L. 201, 212–13 (2012) (discussing the benefits and goals of IWRM).

244. *See* Brendan McNallen, *Fixing the Leaks in Brazil's Water Law: Encouraging Sound Private Sector Participation Through Legal and Regulatory Reform*, 9 GONZ. J. INT'L L. 147, 154 (2006) (noting the economic benefits of having private sector participation in the water sector).

245. De Moor & van Beers, *supra* note 234, at 38.

246. *See* Arnold, *supra* note 114, at 796, 798 (stating that the privatization of the water supplies and infrastructures is a global trend that is appearing prominently in developing countries, but has led to intense conflicts over a variety of issues and faces public opposition in places such as Bolivia); Briscoe, *supra* note 38, at 302 (noting that there is a global trend of an increase in private investment in developing countries' infrastructures). In 2000, ninety-three countries had municipal water systems that underwent some form of privatization, as developing countries turned to large corporations for investments to improve water infrastructure, and as loans from organizations like the World Bank and regional development banks are conditioned upon privatization. Violeta Petrova, Note, *At the Frontiers of the Rush for Blue Gold: Water Privatization and the Human Right to Water*, 31 BROOK. J. INT'L L. 577, 577–78 (2006).

access, and improving quality.[247] On the other hand, some argue that privatization is a dereliction of the government's public trust in a shared common resource and unduly burdens the poor as water rates are raised to ensure debts are repaid and profits secured.[248] Although the merits of privatization are beyond the scope of this Article, it is important to note that cost recovery and effective and reasonable pricing of water as a valuable commodity are not synonymous with privatization.[249]

C. The Provision Right to Water and Ecologic Sustainability

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.[250]

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247. *See* McCaffrey & Neville, *supra* note 219, at 700 ("Some see [private sector] involvement as an efficient way of tapping into capital and technical expertise, thereby achieving both access and conservation goals, increasing the network of official water service provision, and increasing the quality and efficiency of that service.").

248. *See id.* at 700–01 ("Others see private sector involvement as a violation of the right of people to shared, common resource, and as further alienating poor communities by depriving those without means of the ability to pay for necessary water resources."); Alexandra Dapolito Dunn & Erin Derrington, *Investment in Water and Wastewater Infrastructure: An Environmental Justice Challenge, a Governance Solution*, 24 NAT. RESOURCES & ENV'T, Winter 2010, at 3, 4 (noting criticism of water privatization in China where there are claims that companies are benefiting at the expense of the poor by having high profit margins).

249. *See* McCaffrey & Neville, *supra* note 219, at 701 (noting that the South African constitution allows for the payment of water services but does not allow for the denial of basic water access to those that cannot pay, placing a financing or political burden on the government). Corporatized publicly owned utilities, effective and transparent regulatory oversight, and public–private partnerships have the potential to achieve many of the benefits of privatization, including effective pricing and affordable service to poor communities. *See generally* ROUSE, *supra* note 71.

250. *See* CAMDESSUS REPORT, *supra* note 37, at 18 (arguing that "full cost recovery from users is the ideal long-term aim"); *Priceless*, ECONOMIST (July 17, 2003), http://www.economist.com/node/1906846 (last visited Sept. 18, 2013) (noting that the colossal underpricing of water leads to overuse and waste, and contending that sensible water pricing, reflecting actual costs of treatment and transport, would correct the challenge of water conservation) (on file with the

According to a World Bank senior executive, "water pricing is an essential instrument to enhance the sustainability of the resource."[251] Free or heavily subsidized water services lead invariably to waste of water resources with implications for human health, intergenerational equity, and the environment as water is withdrawn faster than it is naturally restored.[252]

There is a growing awareness that large general water subsidies produce waste that is not ecologically sustainable, particularly in water-scarce regions, and that general subsidies for water are harmful in the long run to the environment.[253] Large general water subsidies are a major cause of overdevelopment and environmental degradation in arid regions.[254] In developing countries in particular, general water subsidies have been linked to severe environmental damage such as salinity contamination of rivers, land subsidence, and loss of

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Washington and Lee Law Review).

251. Marwaan Macan-Markar, *World Bank Backs Privatizing Water, Critics Dismayed*, INTER PRESS SERV., Mar. 17, 2003; *see also* Petrova, *supra* note 246, at 587 (quoting the report).

252. *See* MYERS & KENT, *supra* note 240, at 123–31 (describing how water shortages and a lack of clean water in developing countries lead to deaths from water-related diseases, economic harm because of the time that people take each day to find water, and environmental damage through the drainage of wetlands and the depletion of fish stocks); Glennon, *supra* note 40, at 1883 (encouraging a reform of the present system by eliminating subsidies as a strategy that "would gain people's attention about their water use through their pocketbooks" and noting that water prices are "ridiculously low").

253. *See* Peter P. Rogers, *Water Governance, Water Security and Water Sustainability*, *in* WATER CRISIS: MYTH OR REALITY? 3, 4–10 (Peter P. Rogers et al. eds., 2006) (discussing water sustainability issues); Jennifer Hoffpauir, *The Environmental Impact of Commodity Subsidies: NEPA and the Farm Bill*, 20 FORDHAM ENVTL. L. REV. 233, 253–55 (2009) (explaining that the increase in the amount of land used for farming has led to an increase in soil erosion, requiring the use of more pesticides and fertilizers that create lasting environmental impacts).

254. *See* David L. Feldman & Helen Ingram, *Multiple Ways of Knowing Water Resources: Enhancing the Statutes of Water Ethics*, 7 SANTA CLARA J. INT'L L. 1, 7 (2009) ("[M]any ecologists have come to see subsidies provided by government to various groups of water users as a major cause of overdevelopment and damage to the environment."); NAT'L RESEARCH COUNCIL, WATER TRANSFERS IN THE WEST: EFFICIENCY, EQUITY, AND THE ENVIRONMENT 16–25 (1992) (explaining that, among other things, increased environmental demands to maintain fisheries and wildlife in the arid West have led to the end of large subsidized water storage facilities and distribution systems).

biodiversity.[255] Where water in general is underpriced because of large general subsidies, more water is applied to crops, leading to erosion, and sediment and salinity contamination of rivers.[256] Where drinking water is underpriced because of large general subsidies, the lack of incentive to avoid wasting water in domestic uses results in water mining or "overdraft," where water is withdrawn faster than it is naturally recharged, with reduced flow impacting wildlife and nutrient transport and cycling.[257]

The environmental risk posed by a provision rights-based, low-cost or freewater policy is mirrored by other risks posed to public health. General Comment 15, as an example of the provision rights formulation, raises important questions as to how public health can be appropriately prioritized in a provision rights approach.[258] For example, does the priority given to personal and domestic uses include only drinking water, or does it also include sanitation, the most important way to prevent

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255. *See* Feldman, *supra* note 254, at 7 (noting that ecologists see water subsidies as damaging to the environment). This focus on low-cost water demonstrates another inherent problem of any "human rights" approach to water policy, but particularly the positive human rights approach's emphasis on cheap or free water—its inherent "humanness." *See* Leonard Hammer, *Indigenous Peoples as a Catalyst for Applying the Human Right to Water*, 10 INT'L J. MINORITY & GRP. RTS. 131, 135 (2004) ("Human needs branch out to many sectors of society, with each at times offsetting the other's claims and diminishing the utility of the right."). The human right to water as contemplated by General Comment 15 "seems to adopt an anthropocentric model, whereby the environment exists to serve the basic needs of human beings." *Id.* at 134.

256. *See* T.C. DOUGHERTY & A.W. HALL, ENVIRONMENTAL IMPACT ASSESSMENT OF IRRIGATION AND DRAINAGE PROJECTS 47, 48 (1995) (explaining that irrigation systems will make the land wetter and less able to absorb rainfall, potentially leading to more soil erosion and resulting in an increase in the amount of sediments and salinity in the local rivers).

257. *See* Sharad K. Jain, Anupma Sharma, & Rakesh Kumar, *Freshwater and Its Management in India*, 2 INT'L J. RIVER BASIN MGMT. 259, 263–64 (2004) (explaining that large-scale extraction of groundwater in India has led to overdraft and a fall in the water table); J.M. Sharp, Jr., J.N. Krothe, J.D. Mather, B. Garcia-Fresca, & C.A. Steward, *Effects of Urbanization on Groundwater Systems*, *in* EARTH SCIENCE IN THE CITY: A READER 262–63 (Grant Heiken et al. eds., 2003) (explaining that due to the increased pumping, an aquifer in Texas is no longer able to maintain two major springs that are needed to "ensure the survival of several species of flora and fauna that only exist" in that area).

258. *See generally* General Comment 15, *supra* note 26.

water-borne or water-related disease?[259] If so, infrastructure for the proper disposal, treatment, and recycling of wastewater can be even more costly than drinking-water infrastructure, raising even greater concerns for cost recovery and the environment.[260] The requirement to comply with the minimum core of a provision right to water requires investment in costly infrastructure like dams to ensure consistent delivery and emergency storage.[261] And such infrastructure can have serious environmental consequences in terms of habitat loss and the promotion and breeding of disease vectors closer to human habitation.[262] The lack of full cost recovery often associated with the provision right approach may preclude expansion and maintenance of infrastructure, leading greater numbers of poor people to pay higher prices for lower quality water from water vendors.[263]

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259. *See generally* Annette Prüss, David Kay, Lorna Fewtrell & Jamie Bartram, *Estimating the Burden of Disease from Water, Sanitation, and Hygiene at a Global Level*, 110 ENVTL. HEALTH PERSP. 537 (2002).

260. *See* CAMDESSUS REPORT, *supra* note 37, at 39 (stating that wastewater services normally cost more per unit than providing freshwater); GUY HUTTON & LAURENCE HALLER, EVALUATION OF THE COSTS AND BENEFITS OF WATER AND SANITATION IMPROVEMENTS AT THE GLOBAL LEVEL 39 (2004) (noting that the costs in a cost-benefit analysis for water and sanitation interventions are often very tangible, while benefits are not because they may not be financial in nature).

261. *See* WILLIAM JOBIN, DAMS AND DISEASE: ECOLOGICAL DESIGN AND HEALTH IMPACTS OF LARGE DAMS, CANALS AND IRRIGATION SYSTEMS 3 (1999) (stating that increasing populations and rising water consumption will require the use of dams to create greater water reserves).

262. *See id.* at 21, 29 (noting that dam and canal construction leads to loss of habitat through deforestation and creates breeding grounds for disease bearing insects close to human habitation). *See generally* Jennifer Keiser et al., *Effect of Irrigation and Large Dams on the Burden of Malaria on a Global and Regional Scale*, 72 AM. J. TROPICAL MED. & HYGIENE 392 (2005) (discussing the impact of dams and irrigation systems on the prevalence of malaria in nearby human habitation).

263. *See* ROUSE, *supra* note 71, at 47 (stating that general water subsidies are usually insufficient and unavailable for service expansion and maintenance into poor areas, forcing the poor in the developing world to pay water vendors up to twenty-five times more per liter of water than those paying for subsidized water); Marianne Kjellén & Gordon McGranahan, *Informal Water Vendors and the Urban Poor*, *in* HUMAN SETTLEMENTS DISCUSSION PAPER SERIES 12, 16, 17 (2006), http://pubs.iied.org/pdfs/10529IIED.pdf (explaining that it is well established that the urban poor are more likely to be excluded from piped water services and therefore may have to pay water vendors, who supply unsafe water, for their water needs).

Additionally, to the extent a provision right to water requires particular universally applied water quality standards, such a right may also be damaging to human health. Universally applied water quality standards can produce negative public health results. For example, disinfectant byproducts (DBPs) are compounds that result from the reaction of disinfectants (like chlorine) with organic compounds in water.[264] Chronic ingestion of elevated concentrations of DBPs has been associated with cancer risk.[265] Developed countries have the resources to concentrate on improving chronic standards of DBPs. Where chronic DBP standards are applied in developing countries, these countries tend to focus on compliance with DBP standards by reducing disinfectant levels.[266] The threat posed in these countries by microbial pathogens that would be removed by increased disinfectant use is far greater than the threat of chronic carcinogenic DBP concentrations.[267] If the provision right to water requires water of equal quality everywhere, such a right may ignore localized conditions to the detriment of public health.[268]

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264. COMM. TO REVIEW THE NEW YORK CITY WATERSHED MGMT. STRATEGY, NAT'L RESEARCH COUNCIL, WATERSHED MANAGEMENT FOR POTABLE WATER SUPPLY 103 (2000).

265. *See id.* at 104 (showing that the Environmental Protection Agency believes the overall weight of evidence supports a hazard concern with DBPs in the water supply); Barton H. Thompson, Jr., *Markets for Nature*, 25 WM. & MARY ENVTL. L. & POL'Y REV. 261, 296 n.132 (2000) (noting the potential health problems with disinfectant byproducts and the approaches to addressing them).

266. *See* Nicholas John Ashbolt, *Risk Analysis of Drinking Water Microbial Contamination Versus Disinfection By-Products (DBPs)*, 198 TOXICOLOGY 255, 258 (2009) (noting that while environmental factors are important, "it is generally agreed that DBPs hazards may cause cancers").

267. *See id.* at 260 ("[E]fforts to reduce potential health risks from DBP must not compromise pathogen control, despite socio-political issues."). The World Health Organization has cautioned against universal, one-size-fits-all quality standards, noting that it "must be emphasized that the guideline values recommend [by the WHO] are not mandatory limits. In order to define such limits, it is necessary to consider the guideline values in the context of local or national environmental, social, economic, and cultural conditions." Ashok Gadgil, *Drinking Water in Developing Countries*, 23 ANN. REV. ENERGY & ENV'T 253, 255 (1998) (quoting WORLD HEALTH ORGANIZATION, GUIDELINES FOR DRINKING-WATER QUALITY VOLUME 2: HEALTH CRITERIA AND OTHER SUPPORTING INFORMATION (2nd ed. 1996), http://www.who.int/water_sanitation_health/dwq/2edvol2p1.pdf).

268. *See* WORLD HEALTH ORGANIZATION, GUIDELINES FOR DRINKING-WATER

Attempts to formulate a provision right to water invariably involve prioritization of water uses because of limited resources. However, prioritization requires an integrated approach, understanding the implications of expanding water infrastructure for environmental and public health. The anthropocentric focus on low- or no-cost water services of the provision right to water raises serious concerns as to its ecologic sustainability.[269] Where the provision right runs counter to the objective of IWRM because of its narrow focus on drinking water and its failure to integrate ecological considerations, the provision right to water may prove damaging to human health and the environment.[270] As noted above, in addition to interfering with effective IWRM, large general subsidies in the water sector have potentially harmful implications for the poor and actually could frustrate efforts to provide affordable water services. Thus, any ecological damage caused by general public water subsidies is not necessarily outweighed by expanded access and affordability achieved through such an approach.

The provision right to water often fails to satisfy the justifications for a rights-based approach—equity, priority, and accountability. Because provision rights are often effectively unenforceable,[271] water may not be given high priority by

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QUALITY VOLUME 2: HEALTH CRITERIA AND OTHER SUPPORTING INFORMATION (2nd ed. 1996), http://www.who.int/water_sanitation_health/dwq/2edvol2p1.pdf ("[T]he adoption of drinking-water standards that are too stringent could limit the availability of water supplies that meets those standards—a significant consideration in regions of water shortage.").

269. *See* Hammer, *supra* note 255, at 134–35 (explaining that a state requirement to provide quality water to its people could conflict with environmental preservation goals such as the preservation of water). The human right to water as contemplated by General Comment 15 "seems to adopt an anthropocentric model, whereby the environment exists to serve the basic needs of human beings." *Id.* at 134.

270. *See* Thompson, *supra* note 243, at 206, 208 (discussing how the lack of water-management integration can have a negative impact on the environment and on the quality of the water supply); United Nations Conference on Environment and Development, Rio de Janeiro, Braz., June 3–14, 1992, *Agenda 21*, ¶ 18.6, U.N. Doc. A/CONF.151/26 (Vol. II) (Aug. 12, 1992) ("The fragmentation of responsibilities for water resources development among sectoral agencies is proving . . . to be an even greater impediment to promoting integrated water management than had been anticipated.").

271. *See* Cross, *supra* note 11, at 901 ("Because of the economics of rights enforcement and the strategic concerns of the judiciary, judges are likely to do

policymakers, and governments may not be held accountable for their failure to deliver sufficient quality water. As already noted in this section, large general subsidies based on a provision right to water often result in greater inequities in terms of water provision for the poor, and sustainability issues raise concerns of intergenerational equity. Ultimately, provision rights must be evaluated for their pragmatic utility.[272] Without such a utilitarian approach, "provision rights are grounded in nothing more than an altruistic desire to take a symbolic action without regard for the interests of the very beneficiaries they purport to benefit" and reflect only "the conscience of the more privileged."[273]

IV. Toward a Participation Right in Water

The provision rights approach to water policy raises potential problems associated with enforcement, economic and ecologic sustainability, and public health. This approach often fails to achieve the aims of a rights framework, including appropriately prioritizing water, holding governments accountable for water management, and promoting equitable water policies.[274] Indeed, recent empirical studies comparing nations with provision rights to water to similar nations without such rights have found that a provision right to water does little, if anything, to advance equitable water provision.[275] These potential problems are often associated with lack of resources and effective governance institutions in developing countries facing water scarcity and pollution.[276] Nevertheless, despite the potential problems

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very little to promote the ends commanded by [positive] rights.").

272. *See id.* at 878–80 (explaining why the rejection of pragmatism in the evaluation of positive rights is flawed).

273. *Id.*; *see also* MARTHA F. DAVIS, BRUTAL NEED: LAWYERS AND THE WELFARE RIGHTS MOVEMENT, 1960–1973 143 (1993) (noting that litigation strategies are not the best way to combat poverty because the lawyers often have only second-hand knowledge of the issues).

274. *See* Cross, *supra* note 11, at 924–25 (concluding that judges will do little to enforce positive rights even if formally recognized as constitutional).

275. *See* Zetland, *supra* note 32, at 6 (asserting that empirical evidence shows that a constitutional right to water does not produce access to water).

276. *See id.* at 6–7 (noting that a reason why a right to water does not lead to water access is because supplying water requires a functioning government).

associated with the provision rights framework, a right to water may still advance sustainable and equitable water policies.

An alternative approach, aimed at achieving appropriate prioritization of water, equitable water policies, and accountability in water management while avoiding problems of enforceability and sustainability, is a participation right in water. A participation right in water, unlike a provision right, would be immediately binding and enforceable and would not require courts to make technical determinations regarding the minimum core substance of the right.[277] Additionally, because participation rights are largely procedural or involve government forbearance rather than an affirmative obligation to expend resources (at least not at the level of capital-intensive water infrastructure), participation rights claims do not raise the same issues of economic and ecologic sustainability as provision rights.[278] Enforcement of participation rights encourages good water governance, which will lead to improved water provision.

The recent decision in Botswana, *Matsipane Mosetlhanyane v. Attorney General*,[279] illustrates the potential of a rights-based approach aimed at governance and enforcement of existing civil and political rights as an alternative to a provision right to water.[280] The Court of Appeals of Botswana noted that the *Matsipane* case is "a harrowing story of human suffering and despair caused by a shortage of water in the harsh climatic conditions of the Kalahari Desert where the appellants and their Basarwa community live."[281] Matsipane was a member of the Basarwa community that lived in the Central Kalahari Game

277. *See* Cross, *supra* note 11, at 901 (noting that positive rights tend to be vague and indeterminate, forcing judges to make rulings based on contested values); Zetland, *supra* note 32, at 9 ("Property rights strengthen the incentive to enforce legal or cultural standards of clean water.").

278. *See* Zetland, *supra* note 32, at 11 (stating that privatization of water delivery leads to better water quality and more efficient water delivery systems because of more competition).

279. Civ. App. No. CACLB-074-10, ¶ 20 (Ct. App. Jan. 27, 2011) (Bots.), http://www.escr-net.org/sites/default/files/bushmen-water-appeal-judgement-jan-2011.pdf.

280. *See id.* ¶ 1 (concerning whether the residents of the Central Kalahari Game Reserve have the ability to recommission a borehole at their own expense for access to water).

281. *Id.* ¶ 4.

Reserve (CKGR), a national park in Botswana. The government of Botswana changed its policy with respect to the Basarwa community's presence in the park after the Basarwa lived within the CKGR for years.[282] As part of an alleged attempt to remove the Basarwa from the park, in 2002 the government decommissioned wells that it had previously maintained and that the community used as its sole source of water.[283] The decommissioning of the wells resulted in serious health complications for members of the Basarwa community.[284] Unlike in South Africa, there is no provision right to water under the Constitution of Botswana.

The Basarwa community, however, was able to use a participation right guaranteed under the Constitution of Botswana to secure access to water resources.[285] The right relied upon by the Basarwa community, and upheld by the appellate court, is set forth in Section 7(1) of the Constitution of Botswana, which provides that "[n]o person shall be subjected to torture or to inhuman or degrading punishment or other treatment."[286]

Unlike South Africa's Constitutional Court decision in *Mazibuko*,[287] which pointed out that the constitutional guarantee

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282. *Id.* ¶¶ 4–7. At the time the CKGR was established, it was expressly stated that the Basarwa could maintain their nomadic presence in the CKGR. *Id.* ¶¶ 4–5. Over the years, however, the Basarwa had established permanent settlements in the CKGR. *Id.* ¶ 4. The government of Botswana determined that permanent settlements were not compatible with the ecological conservation purposes of the CKGR and that the Basarwa community should be relocated. *Id.*

283. *Id.* ¶ 8. In 1986, the De Beers Company agreed that a prospecting borehole installed by the company within the CKGR could be used by the Basarwa community as a well for domestic water use. *Id.* ¶ 5. The Ghanzi District Council, a municipal governmental entity, maintained the well pump on the borehole and provided fuel for the pump engine. *Id.* ¶ 6.

284. *Id.* ¶¶ 7–8.

285. The trial court in *Matsipane* denied the Basarwa community's claim of access to the borehole in part because the court interpreted water law in Botswana to require an administratively issued water right in order to withdraw groundwater. *Id.* ¶ 13. The Basarwa had no such administratively issued water right in connection with its withdrawals from the De Beers borehole. *Id.* ¶ 5. The appellate court reversed the trial court's decision regarding the requirement of a water right, holding that "any person who lawfully occupies or owns land has a right to sink a borehole on such land for domestic purposes without a water right." *Id.* ¶ 16.

286. *Id.* ¶ 19 (citing CONST. Sept. 30, 1966, ch. II, § 7(1) (Bots.)).

287. *Supra* note 174 and accompanying text.

at issue was conditioned on "progressive realization," the appellate court in Botswana noted that the constitutional guarantee at issue in *Matsipane* is "absolute and unqualified."[288] The appellate court concluded, given how the community suffered from lack of water, that denial of access to the borehole constituted a violation of the Basarwa's constitutionally guaranteed right to be free from degrading treatment.[289] The wells were recommissioned and maintained by the government, with the Basarwa paying tariffs for maintenance of the wells.[290] The court's decision immediately secured water resources for the Basarwa without being limited by available resources or requiring the court to make a technical determination of a minimum core, and the decision did not require an unsustainable approach to water provision.[291]

The next subpart proposes an alternative approach to the right to water, framing the right to water as a participation right. Subpart A proposes and evaluates a participation right in water, and argues that such a right can be immediately and effectively implemented in many countries if based on the public trust doctrine. Subpart B considers the limitations of a participation right in water generally and a participation right in water based on the public trust doctrine specifically. Finally, subpart C discusses how assertion of a participation right in water, despite not guaranteeing a minimum core of quality or quantity, would ultimately promote the development and implementation of sustainable and equitable water policies essential for the provision of a minimum core of water quality and supply for all.

A. A Participation Right in Water and the Public Trust Doctrine

The *Matsipane* case illustrates how claims based on participation rights can facilitate water access for disadvantaged people while avoiding issues of sustainability and

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288. Matsipane Mosetlhanyane v. Attorney Gen., Civ. App. No. CACLB-074-10, ¶ 19 (Ct. App. Jan. 27, 2011) (Bots.), http://www.escr-net.org/sites/default/files/bushmen-water-appeal-judgement-jan-2011.pdf.

289. *Id.* ¶¶ 19, 22.

290. *Id.* ¶ 25.

291. *Id.*

enforceability.[292] In *Matsipane*, the Basarwa successfully secured access and control over water resources and compelled the government to restore and maintain water infrastructure by relying on an enforceable participation right that did not require the court to engage in technical determinations of water management for which it was ill-suited.[293]

Such participation rights claims could be framed in several ways. First, where water services are provided, denied, or withdrawn because of government discrimination on the basis of gender, ethnicity, race, or religion, such water policy would violate broadly accepted participation rights to equal protection.[294] For example, the U.N. Human Rights Committee commented on Israel's approach to water provision in Palestinian territories, arguing that denial of water could constitute a violation of the right to equal protection under the law.[295]

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292. *Id.* ("[D]ecision reflects broader protection of indigenous peoples on land marked as game preserves.").

293. *Id.* ¶ 16 (concluding that Basarwa do not require a water right for the use of the borehole). Scholars of the human right to food have recently argued in favor of focusing on supply side solutions to hunger, arguing that in lieu of food programs, more should be done with "expanding social and political rights" as more effective in combating hunger. J. Craig Jenkins, Stephen J. Scanlan & Lindsey Peterson, *Military Famine, Human Rights, and Child Hunger: A Cross-National Analysis, 1990–2000*, 51 J. CONFLICT RESOL. 823, 823 (2007). States that protect civil rights experience three times the rate of economic growth of states that fail to protect those rights, creating a resource pool from which a state can provide primary goods for citizen interests. Gerald W. Scully, *The Institutional Framework and Economic Development*, 96 J. POL. ECON. 652, 661 (1988).

294. *See* Anja Seibert-Fohr, *The Rise of Equality in International Law and Its Pitfalls: Learning from Comparative Constitutional Law*, 35 BROOK. J. INT'L L. 1, 3 (2010) ("The principle of nondiscrimination prohibits any distinction, exclusion, restriction, or preference that is based on any grounds, such as race, color, or other identifiable individual or group distinctions.").

295. *See* U.N. Human Rights Comm., *Consideration of Reports Submitted by States Parties Under Article 40 of the Covenant: Concluding Observations of the Human Rights Committee: Israel*, ¶ 18, U.N. Doc. CCPR/C/ISR/CO/3 (Sept. 3, 2010), http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G10/448/06/PDF/G1044806.pdf ("The Committee is concerned at water shortages disproportionately affecting the Palestinian population of the West Bank . . . . The State party should ensure that all residents of the West Bank have equal access to water, in accordance with the World Health Organization quality and quantity standards."); McGraw, *supra* note 98, at 147 (noting that the Human Rights Committee first recognized the denial of water as a violation of the right to equal protection under the law in its 2010 report).

Importantly, the only two instances where a right to water is referenced explicitly in binding international law treaties are in the Convention for the Elimination of All Forms of Discrimination Against Women (CEDAW)[296] and the Convention on the Rights of Children (CRC),[297] two conventions directed at protecting classes of people against discrimination.

Second, in some circumstances, communities could assert that government water policy constitutes a violation of the broadly accepted right to religious liberty.[298] For example, for certain communities, rivers have religious significance.[299] Where government policy relating to water abstractions or water quality in that river interferes with religious worship, such communities could allege that government action violates guarantees of religious freedom.[300]

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296. Convention on the Elimination of All Forms of Discrimination Against Women, G.A. Res. 34/180, U.N. Doc. A/RES/34/180, at 196 (Dec. 18, 1979) http://daccess-dds-ny.un.org/doc/RESOLUTION/GEN/NR0/378/07/IMG/NR037807.pdf [hereinafter CEDAW] ("State Parties . . . shall ensure to such women the right . . . [t]o enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications.").

297. Convention on the Rights of the Child, G.A. Res. 44/25, U.N. Doc. A/RES/44/25, at 169–70 (Nov. 20, 1989) http://www.un.org/documents/ga/res/44/a44r025.htm [hereinafter CRC] ("State Parties shall pursue full implementation of this right and, in particular, shall take appropriate measures . . . [t]o combat disease and malnutrition, including within the framework of primary health care, through, *inter alia* . . . the provision of adequate nutritious foods and clean drinking-water . . . .").

298. *See* Johan D. van der Vyver, *Limitations of Freedom of Religion or Belief: International Law Perspectives*, 19 EMORY INT'L L. REV. 499, 503–12 (2005) (describing international conventions that protect the freedom of religion).

299. *See, e.g.*, Diana L. Eck, *Ganga: The Goddess Ganges in Hindu Sacred Geography*, *in* DEVI: GODDESS OF INDIA 137, 137 (John S. Hawley & Donna M. Wulff eds., 1996) ("Along her entire length the Ganga is sacred, and just as a temple or a holy city might be circumambulated, so is the entire river circumambulated . . . ."); Kheryn Klubnikin et al., *The Sacred and the Scientific: Traditional Ecological Knowledge in Siberian River Conservation*, 10 ECOLOGICAL APPLICATIONS 1296, 1304–05 (2000) (describing the cultural and religious significance of the Katun River to indigenous groups in the Altai Mountain region of Siberia).

300. *See, e.g.*, U.N. Declaration on the Rights of Indigenous Peoples, G.A. Res. 61/295, U.N. Doc. A/RES/61/295, at 7 (Sept. 13, 2007) http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf [hereinafter IP Declaration] ("Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationships with their traditionally owned or otherwise occupied and

Third, governmental policy interfering with or appropriating property rights without just compensation or due process constitutes an unlawful exercise of eminent domain authority and a violation of a broadly accepted participation right recognized under international law.[301] Where individuals or communities have secured a property interest in water and the government unjustly or arbitrarily interferes with that interest, such interference could constitute a participation rights violation.[302] For example, where an irrigation district had a government-issued right to use water in California, the California government's regulations protecting certain endangered species that limited that water right violated citizens' participation rights to be free from unjust and arbitrary exercises of eminent domain.[303]

These types of claims, as well as the participation rights claim in *Matsipane* based on a right to be free from inhumane treatment,[304] have certain potential advantages over a provision

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used lands, territories, waters and coastal seas and other resources . . . ."); Navajo Nation v. U.S. Forest Serv., 535 F.3d 1058, 1108 (9th Cir. 2008) (Fletcher, J. dissenting) (arguing that the use of recycled wastewater that contains 0.0001% human waste in the artificial snowmaking process on federally owned public land that has religious and cultural significance to southwestern Indian tribes violates the tribes' free exercise of religion); *see also supra* Part II.C (providing examples of international and domestic provisions that either explicitly or implicitly grant a legal right to water access).

301. *See, e.g.*, CP Covenant, *supra* note 15, at 53 ("All people may . . . freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence."). *See generally* Michael G. Parisi, *Moving Toward Transparency? An Examination of Regulatory Takings in International Law*, 19 EMORY INT'L L. REV. 383 (2005).

302. *See, e.g.*, U.S. CONST. amend. V ("No person shall . . . be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.").

303. *See generally* Tulare Lake Basin Water Storage Dist. v. United States, 49 Fed. Cl. 313 (2001); *see also* Casitas Mun. Water Dist. v. United States, 543 F.3d 1276, 1288–97 (Fed. Cir. 2008) (analyzing the government's diversion of canal water for the purpose of protecting an endangered fish species under the physical taking paradigm).

304. Matsipane Mosetlhanyane v. Att'y Gen., Civ. App. No. CACLB-074-10, ¶ 20 (Civ. App. Jan. 27, 2011) (Bots.), http://www.escr-net.org/sites/default/files/bushmen-water-appeal-judgement-jan-2011.pdf ("It was submitted on the appellants' behalf that the Government's refusal to allow them permission to use, at their own expense, the [well] . . . for domestic purposes

rights approach. The right at issue is immediately binding and not conditioned on available resources. Unlike provision rights, enforcement of a participation right does not require the court to make technical determinations regarding a minimum core, but rather tells the government it must either cease a particular action or return what it has taken.[305] Additionally, because these rights demand government forbearance, participation rights do not implicate the same concerns for economic sustainability as an affirmative duty to provide a certain amount and quality of water under a provision right.[306]

Under international law, the advantages of a participation rights approach are even more pronounced. Participation rights guaranteed under the CP Covenant are jurisprudentially mature and allow for claims to be brought by non-state actors under a binding Optional Protocol,[307] unlike provision rights enumerated in the ESC Covenant.[308] The central concern for advocates of a

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amounts to degrading treatment . . . .").

305. *See, e.g.*, *Tulare Lake Basin*, 49 Fed. Cl. at 324 (requiring the government to pay for the water that was taken for public use).

306. *See* Zetland, *supra* note 32, at 4 ("Positive rights are hard to define and costly to provide . . . . We cannot tell when action, of a certain quality, quantity or price, is enough. It costs nothing to supply an increased demand for negative rights, but the cost of positive rights grows with demand (e.g., population).").

307. *See* Optional Protocol to the International Covenant on Civil and Political Rights, G.A. Res. 2200, U.N. Doc. A/RES/2200(XXI), at 59 (Dec. 16, 1966), http://www.un-documents.net/a21r2200.htm ("A State Party to the Covenant that becomes a party to the present Protocol recognizes the competence of the Committee to receive and consider communications from individuals . . . who claim to be victims of a violation by that State Party of any of the rights set forth in the Covenant."); JOSEPH ET AL., *supra* note 206, at 105 (explaining the domestic remedies that a complainant must exhaust before seeking redress internationally through the CP Covenant). Similar claims based on civil rights guaranteeing equal protection and religious freedom could also be asserted under the CP Covenant. *See* CP Covenant, *supra* note 15, at 54 ("All persons shall be equal before the courts and tribunals."); *id.* at 55 ("Everyone shall have the right to freedom of thought, conscience and religion.").

308. *See* Michael J. Dennis & David P. Stewart, *Justiciability of Economic, Social, and Cultural Rights: Should There Be an International Complaints Mechanism to Adjudicate the Rights to Food, Water, Housing, and Health?*, 98 AM. J. INT'L L. 462, 462 (2004) ("Ever since the adoption of the [ESC Covenant] . . . proponents of economic, social, and cultural rights have complained that the [ESC Covenant] lacks oversight and implementation mechanisms equal to those provided in the [CP Covenant] and its first Optional Protocol."). *But see* Optional Protocol to the International Covenant on Economic, Social and Cultural Rights, G.A. Res. 63/117, U.N. Doc.

right to water under international law is arguably to give effect to the central reason for such a right—which is to provide legal leverage for disenfranchised or economically disadvantaged peoples to influence the development of water policy. No such leverage exists under international law without an adjudicative process and a binding Optional Protocol.[309]

However, there are obvious limitations to these types of participation rights claims. In *Matsipane*, in particular, the right at issue is a broad and rather uniquely formulated right.[310] The situation in *Matsipane* is so peculiarly well-suited to a successful claim under such a unique right as to provide little guidance on what a participation right in water would look like in other countries and under more common circumstances.[311] Still, a participation rights approach, like those more general claims discussed above,[312] remains problematic for more broadly applicable reasons.

First, such claims do not, in and of themselves, constitute a participation right in water. Rather, the issue of water is incidental to the violation of some other participation right.[313]

A/RES/63/117, at 2 (Dec. 10, 2008) ("Communications may be submitted by or on behalf of individuals or groups of individuals, under the jurisdiction of a State Party, claiming to be victims of a violation of any of the economic, social and cultural rights set forth in the Covenant by that State Party.").

309. *See* Dennis & Stewart, *supra* note 308, at 463 ("[S]tate compliance with economic, social, and cultural rights must be 'justiciable'—subject to the possibility of formal third-party adjudication, with remedies for findings of noncompliance.").

310. *See* Matsipane Mosetlhanyane v. Att'y Gen., Civ. App. No. CACLB-074-10, ¶ 25 (Ct. App. Jan. 27, 2011) (Bots.), http://www.escr-net.org/sites/default/files/bushmen-water-appeal-judgement-jan-2011.pdf (asserting both that the appellants had an inherent right to access water by reopening an existing well and that the government refrain from preventing the exercising of that right).

311. Nevertheless, under Part III, Article 7 of the CP Covenant, "[n]o one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment." CP Covenant, *supra* note 15, at 53. The Basarwa community's claim that the government violated its negative right to be free from torture or inhuman punishment or treatment could be asserted in an international tribunal. *See Matsipane*, Civ. App. No. CACLB-074-10, ¶ 19 (discussing the right to be free from torture or inhuman punishment).

312. *Supra* Part IV.

313. *See, e.g.*, CP Covenant, *supra* note 15, at 53 (prohibiting torture and inhuman and cruel treatment or punishment, but never specifically mentioning access to water).

Second, these claims assume both access to water and that the state is simply discriminating in its provision or management.[314] These assumptions may not apply in many cases, particularly in developing countries, and do not necessarily provide more or better water to those in need of improved quantity and quality. Such an assumption is particularly problematic with regards to claims of an unlawful exercise of eminent domain, because the assumption is that the aggrieved party has existing entitlements or property rights.[315] Those most in need of a right to water are also those least likely to have such entitlements and property protected by participation rights. Third, reallocating water on the basis of these types of claims may not necessarily be more equitable. Claims of discrimination or infringement on religious liberties could result in inequitable allocations of water.

The challenge, therefore, is how to formulate a participation right in water—one that is sustainable, immediately enforceable, jurisprudentially mature, and avoids compelling courts to make technical determinations for which they are ill-suited. At the same time, such a participation right must be broadly applicable and grounded on widely accepted legal doctrines directly applicable to water apportionment and quality. Furthermore, a participation right in water must satisfy the three justifications for applying a rights framework to water policy—equity, priority, and accountability. While a participation right in water can be grounded on existing civil or political rights (as seen in *Matsipane*)[316] or expressly incorporated into national constitutions, the public trust doctrine provides the foundation for a participation right in water meeting these criteria that can be broadly and immediately implemented in many parts of the world.

The "public trust doctrine" is a common legal doctrine with roots in Roman and British law recognized in many countries,

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314. *See, e.g.*, *Matsipane*, Civ. App. No. CACLB-074-10, ¶¶ 1–9 (establishing the Basarwa community's right to recommission a previously existing well).

315. *See* JOHN LEWIS, A TREATISE ON THE LAW OF EMINENT DOMAIN IN THE UNITED STATES 1 (3d ed. 1909) ("Eminent domain is the right or power of a sovereign State to appropriate *private property* to particular uses, for the purpose of promoting the general welfare." (emphasis added)).

316. *See Matsipane*, Civ. App. No. CACLB-074-10, ¶¶ 1–9 (establishing the Basarwa community's right to recommission a previously existing well).

whereby water is seen as being held in trust by the government for the benefit of all citizens.[317] As noted above, while the public trust doctrine is interpreted and applied differently through the world, it is widely recognized legal doctrine in many parts of Africa, Asia, the Americas, and Europe.[318] Furthermore, the public trust doctrine is increasingly recognized as binding customary international law and a canon of interpretation of international environmental law.[319]

Citizens thus do not own water under the public trust doctrine.[320] Instead, they hold usufructuary rights rather than exclusive-possessory ownership.[321] That right to use water held in trust by the state is subject to conditions imposed by the state trustee, typically the requirement that any use be "reasonable and beneficial."[322] Thus, the government owns water in trust for

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317. *See* Sax, *supra* note 51, at 475 (describing the historical background of the public trust doctrine).

318. *See* Blumm & Guthrie, *supra* note 17, at 760–808 (finding applications of the public trust doctrine in many countries, including India, Pakistan, the Philippines, Uganda, Kenya, Nigeria, South Africa, Brazil, Ecuador, and Canada).

319. *See id.* at 748 ("Somewhat surprisingly, the public trust doctrine has become institutionalized and, in the process, moved to the forefront of environmental protection in several countries."); Edith Brown Weiss, *Intergenerational Equity: A Legal Framework for Global Environmental Change*, *in* ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW 385, 398 (Edith Brown Weiss ed., 1992) ("The theory of intergenerational equity has a deep basis in international law."); William D. Araiza, *The Public Trust Doctrine as an Interpretive Canon*, 45 U.C. DAVIS L. REV. 693, 714–19 (2012) (arguing that courts rely on the public trust doctrine as a cannon of interpretation even when ruling on non-aquatic resources); Thompson, *supra* note 9, at 35 (noting that the public trust doctrine could be used in connection with customary international law to establish a human right to water); Sandra B. Zellmer & Jessica Harder, *Unbundling Property in Water*, 59 ALA. L. REV. 679, 696 (2008) ("A strong parallel to the public trust doctrine can be seen in international law, where various conventions and declarations identify water as a basic human right, either on its own or as a necessary incident of other human rights.").

320. *See* Saxer, *supra* note 230, at 50 ("Water is a crucial public resource, and its fluid nature requires that the government limit private rights to the 'right to use' water that ultimately belongs to the public and is held in trust for us by the government.").

321. *See id.* ("By expanding the public trust doctrine to support a public stewardship model, the management and allocation of this unique common resource will be entrusted to the government for the public good.").

322. *See id.* at 64–69 (describing the state's resource management obligations under the public trust doctrine); Michael C. Blumm & Thea

all citizens but recognizes the rights of individual citizens to use water so long as that use is beneficial (in other words, is not wasteful) and reasonable (in other words, does not impair the beneficial use of another right-holder). The public trust doctrine is both a negative limitation on private property interests in water and an affirmative obligation of the government to protect water resources held in trust for all.[323]

The dual nature of the public trust doctrine provides the basis of a participation right in water. The interests all citizens have as beneficiaries of the public trust constitute a property interest in water resources.[324] Essentially, the interest held by the citizens in public trust property begins at the negative limitation on the usufructuary water rights of individuals—citizens have a right to ensure that property held in trust is used both reasonably and beneficially.[325] Where government action impairs or interferes with that trust interest (in other words, water is used unreasonably or not beneficially), individual citizens' participation rights to be free from unjust or arbitrary exercises of eminent domain are violated.[326] Where the government breaches its obligation to manage water held in the

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Schwartz, *Mono Lake and the Evolving Public Trust in Western Water*, 37 ARIZ. L. REV. 701, 722 (1995) ("The union of the appropriation system and the public trust doctrine meant that the property right in water was correlative, . . . water diverters have no right to a fixed quantity of water, only a reasonable beneficial use that accommodates trust uses where feasible.").

323. *See* John D. Echeverria, *The Public Trust Doctrine as a Background Principles Defense in Takings Litigation*, 45 U.C. DAVIS L. REV. 931, 950–54 (2012) (identifying four definitions for the public trust doctrine, including a duty to manage resources for the public's benefit and a limitation on private ownership of trust resources). Where government actions have interfered with these usufructuary water rights, there has been a debate as to whether such interference constitutes an exercise of eminent domain. *See generally* LEWIS, *supra* note 315. This debate is outside the scope of this Article.

324. *See* Sax, *supra* note 51, at 478 ("The most common theory advanced in support of a special trust obligation is a property notion . . . .").

325. *See id.* at 485 ("[O]ne does not own a property right in water in the same way he owns his watch or his shoes, but . . . he owns only an usufruct—an interest that incorporates the need of others.").

326. *See* Saxer, *supra* note 230, at 55 ("If we deem water to be a property right, government restrictions on the right to use water may result in a finding that water users must be justly compensated under the Takings Clause and may also generate due process or equal protection claims.").

public trust, that breach violates citizens' participation right in water.

The participation right in water under the public trust doctrine is both procedural and substantive. However, it does not require the state to affirmatively provide water to anyone—only to ensure that it meets due process requirements in water resource management and complies with the requirements to manage public trust property in accordance with the principles of reasonable and beneficial use.[327] Where the state infringes upon the interests of its citizens in public trust property by failing to manage water in accordance with the principles of reasonable and beneficial use, water rights allocations and discharge authorizations may be revoked or suspended pending review. The public trust doctrine has been applied in many jurisdictions internationally, with broad implications for the state's authority to condition water abstraction, use, and discharge permits, as well as water service concession contracts.[328] State water management decisions, including authorizations of discharges, allocations of water rights, and concession contracts for ownership or operation of water infrastructure, should comply with principles of due process, including adequate public notice, transparency, and stakeholder participation. Water policy decisions taken inconsistent with these due process requirements would be void pending remediation of the procedural defect.[329]

South Africa and *Mazibuko* provide excellent context to understand how the participation right in water based on the public trust doctrine would operate in practice.[330] The public trust doctrine is enshrined in South Africa's National Water Act[331] and

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327. *See* Zellmer & Harder, *supra* note 319, at 691–99 (describing the nature of water rights under the public trust doctrine).

328. *See* Blumm & Guthrie, *supra* note 17, at 760–808 (finding developed public trust doctrines in at least ten countries).

329. *See* Saxer, *supra* note 230, at 104 ("In addition to a takings claim, litigants seeking a remedy from the government for interference with their water rights may assert claims that the government action has deprived them of due process (procedural and/or substantive) and/or equal protection.").

330. *See Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at 23–34 paras. 46–68 (S. Afr.) (defining the obligations imposed upon the state by a constitution that grants the right of access to sufficient water).

331. *See* National Water Act 36 of 1998 § 3(1) (S. Afr.) ("As the public trustee of the nation's water resources the National Government, acting through the

the National Environmental Management Act.[332] Instead of pursuing a provision rights claim, Mazibuko and the residents of Phiri could have claimed that the prepaid water program deprived them of their property interest, held as beneficiaries of the public trust, without due process. Additionally, Mazibuko and the residents of Phiri could allege that Johannesburg failed to manage water resources consistent with the principles of reasonable and beneficial use by establishing an inadequate water provision system that failed to account for household size, consumption patterns, and ability to pay. The remedy would have been suspension of the prepaid free basic water program pending an improved process involving stakeholders from Phiri and the establishment of a record justifying the city's ultimate approach.[333] A similar approach could be taken in other countries mentioned above where the public trust doctrine is a recognized feature of their jurisprudence and where they face challenges in developing equitable water policies, including India, the United States, Bolivia, and Botswana.[334] This approach may also be viable as the public trust doctrine achieves increasing recognition as customary international law in international tribunals.[335]

A participation right in water, like a provision right, puts first things first. However, unlike a provision right, a

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Minister, 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.").

332. National Environmental Management Act 107 of 1998 § 2(4)(o) (S. Afr.) ("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."); *see also* 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, 2167 (2005) ("The public trust doctrine forms the cornerstone of the public rights system introduced by the National Water Act.").

333. *See supra* Part III (describing the relevance of the *Mazibuko* case to the distinction between a provision right and a participation right).

334. See Blumm & Guthrie, *supra* note 17, for a description of the public trust doctrine in the United States, India, and around the world.

335. *See* David Takacs, *The Public Trust Doctrine, Environmental Human Rights, and the Future of Private Property*, 16 N.Y.U. ENVTL. L.J. 711, 734 (2008) ("As an emerging norm in customary international law that is codified in ever more numerous documents in more and more corners of the world, Environmental Human Rights have enormous potential to create new prohibitions on what a private property owner may do with her land.").

participation right in water based on the public trust doctrine would be immediately enforceable and grounded on a broadly accepted legal doctrine commonly applied to water management. Additionally, such a right does not compel courts to make technical determinations for which they are ill-suited. Because a participation right in water would not necessarily require provision of a certain quantity or quality of water at a certain price, it does not raise the problems of sustainability associated with a provision right.[336] Furthermore, a participation right in water based on the public trust doctrine would allow citizens to hold their governments accountable for mismanagement of water resources. Finally, the participation right in water empowers disadvantaged people to engage in the development of water policy, thereby promoting equitable provision of sufficient, affordable, and clean water.

B. Evaluating the Limitations of the Participation Right in Water

Despite its advantages over a provision right, the participation right in water is no panacea. A participation rights approach in water policy in general has several potential limitations, including the following: (1) participation rights are not adequately protected in those countries suffering most from water stress and many of these countries do not recognize the public trust doctrine or do so in ways not suitable to support a participation right in water; (2) disadvantaged people are no more likely to prevail under a participation rights approach than a provision rights approach in court; (3) the cost of asserting participation rights effectively precludes their use for disadvantaged peoples; (4) without a guaranteed minimum core, the participation rights approach raises concerns of inequitable water pricing; and (5) a participation rights approach is an iterative, ad hoc approach lacking the integrated, centralized character of a provision right to water. The participation right in water based on the public trust addresses some of these potential

336. For an example of the allocation complications of provision rights, see *Mazibuko v. Johannesburg*, 2010 (3) SA 1 (CC) at 6–9 paras. 10–18 (S. Afr.), http://www.saflii.org/za/cases/ZACC/2009/28.pdf (describing the inefficiency of water distribution in South Africa under a provision rights system).

limitations but features other limitations of its own as well. This subsection evaluates these potential limitations of a participation right in water generally, and the participation right to water based on the public trust specifically, concluding that despite the potential limitations, the participation right in water remains a promising avenue for addressing problems of inequity and sustainability in water policy.

The first objection to a participation rights approach to water generally is that participation rights are not adequately protected in many countries, and perhaps most particularly in countries suffering from water stress and lacking the governance institutions necessary to address water stress. Instability, poverty, war, and corruption have prevented or slowed development of equitable and sustainable water policy in many parts of the world, with a lack of enforceable participation rights associated with such governance challenges partially attributable to failures in water policy in such countries.[337] Indeed, government incompetence or corruption is often as much a cause of drought as the climate.[338] Strengthening civil society, improving governance institutions, combating corruption through transparency, and protecting civil and political rights is essential for equitable and sustainable water resource management.[339]

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337. *See generally* Gadgil, *supra* note 267.

338. *See* Nejat Anbarci et al., *The Ill Effects of Public Sector Corruption in the Water and Sanitation Sector*, 85 LAND ECON. 363, 366 (2009) ("That corruption is pervasive in the water and sanitation sector seems beyond dispute."); Janelle Plummer, *Water and Corruption: A Destructive Partnership*, *in* GLOBAL CORRUPTION REPORT 2008 3, 3–17, http://archive.transparency.org/content/download/32766/502089 (arguing that corruption in water sectors exacerbates the water inaccessibility worldwide); Muhammad Sohail & Sue Cavill, *Water for the Poor: Corruption in Water Supply and Sanitation*, GLOBAL CORRUPTION REP., 2008, at 40, 41, http://archive.transparency.org/publications/gcr/gcr_2008 ("More than any other group, the poor are the main victims of the global water crisis. . . . Corruption is a major force driving . . . the growing global water crisis.").

339. *See generally* Emmanuelle Auriol & Aymeric Blanc, *Capture and Corruption in Public Utilities: The Cases of Water and Electricity in Sub-Saharan Africa*, 17 UTIL. POL'Y 203 (2009). States that protect civil rights experience three times the rate of economic growth of states that fail to protect those rights, creating a resource pool from which a state can provide primary goods for citizen interests. Scully, *supra* note 293, at 661.

Additionally, the public trust doctrine, despite being accepted in many countries, is not recognized in all nations.[340] Even where it is recognized, it may be applied in ways unsuitable to support a participation right in water.[341] Successful implementation of the participation right in water based on the public trust doctrine will be limited, at least at first, to those countries with strong governance institutions, a public trust doctrine recognized and applied in ways facilitating a participation right in water, but facing water stress issues. More research will be needed on the suitability of particular states for this approach, but India and South Africa appear to meet the necessary criteria to successfully implement a participation right in water based on the public trust doctrine.[342]

One potential avenue for addressing the challenge of the limited geographic scope of the participation right to water is through an appeal to international law. Supranational organizations teach national governments how to govern by means of developing and encouraging international discourse and norms, in a process called "constructivism."[343] The Optional Protocol to the CP Covenant allows nonstate actors to bring participation rights claims against their governments, thereby facilitating developing norms.[344] As noted above, the public trust doctrine and the right to be free from arbitrary deprivations of

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340. *See generally* Mary Turnipseed et al., *Reinvigorating the Public Trust Doctrine: Expert Opinion on the Potential of a Public Trust Mandate in U.S. and International Environmental Law*, 52 ENV'T 6 (2010).

341. *See, e.g.*, *id.* at 11–12 (explaining that the lack of private or charitable trust equivalents in some contemporary European civil legal systems complicates the operation of public trusts in those systems).

342. *See, e.g.*, M.C. Mehta v. Kamal Nath (1997) 1 S.C.C. 388, 414–15 (India) (finding that a lease of public land approving blasting within a national park violated the public trust doctrine); Robyn Stein, *South Africa's New Democratic Water Legislation: National Government's Role as Public Trustee in Dam Building and Management Activities*, 18 J. ENERGY & NAT. RESOURCES L. 284, 284–95 (2000) (analyzing the South African government's role as public trustee under the National Water Act 36 of 1998).

343. *M.C. Mehta*, 1 S.C.C. at 414–15.

344. *See* Optional Protocol to the CP Covenant, *supra* note 206, at 59 ("A State Party . . . recognizes the competence of the Committee to receive and consider communications from individuals subject to its jurisdiction who claim to be victims of a violation by that State Party of any of the rights set forth in the Covenant.").

property are both recognized under international law.[345] As such, claims of violations of a participation right in water based on the public trust doctrine could facilitate discourse on equitable and sustainable water policy and encourage the development of such norms in national governments.

A second objection to a participation rights approach in general is that disadvantaged people are perhaps no more likely to prevail under such an approach than under a provision rights approach. For example, the plaintiffs in *Mazibuko* asserted participation rights claims.[346] They argued that the prepaid meters approach was unconstitutional because it was imposed in Phiri, and not in other areas of Johannesburg, based on racial discrimination.[347] The lower courts each held in favor of the plaintiffs,[348] but this holding was reversed by the Constitutional Court.[349] The Constitutional Court held that the prepaid meters and "free basic water" approach were taken in Phiri because Phiri was the township with the greatest amount of nonrevenue water in Johannesburg, not because of race.[350] The Constitutional Court, however, was arguably too quick to disentangle the challenge of cost recovery in Phiri from the township's racial history. In any event, *Mazibuko* is as much an example of the limits of a participation rights approach as it is of the problems of provision rights. However, the complex relationship between discrimination of racial, ethnic, and religious minorities and inequalities in resource allocation is a limitation inherent in the adjudication of any kind of right.[351]

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345. *See* Zellmer & Harder, *supra* note 319, at 696 ("A strong parallel to the public trust doctrine can be seen in international law, where various conventions and declarations identify water as a basic human right, either on its own or as a necessary incident of other human rights.").

346. *Mazibuko v. City of Johannesburg* 2010 (4) SA 1 (CC) at 21–23 paras. 44–45 (S. Afr.).

347. *Id.* at 78 para. 148.

348. *Id.* at 12–18 paras. 26–40.

349. *See id.* at 87 para. 169 (holding "neither the Free Basic Water policy nor the introduction of prepaid water meters in Phiri . . . constitute a breach of section 27 of the Constitution. Accordingly, the respondents' appeals succeed and the order made by the Supreme Court of Appeal should be set aside").

350. *See id.* at 78 para. 149 (discussing the Constitutional Court's finding that the water system was implemented for economic and not racial purposes).

351. *See* Cross, *supra* note 11, at 881 (discussing the relative difficulties poor communities face when attempting to litigate rights).

On the other hand, *Matsipane* is arguably as much an example of the potential of a provision rights approach as it is of a participation rights approach. While the court in *Matsipane* ultimately held in favor of the Basarwa based on a participation right, the court bolstered its argument by relying on provision rights rhetoric.[352] The court, in deciding in favor of the Basarwa, relied on the 2010 U.N. Resolution and General Comment 15 in support of their holding that the closure of the borehole violated the constitution of Botswana.[353] As such, while the typical formulation of the provision right to water is problematic from a legal and sustainability perspective,[354] it still has rhetorical and political value, as illustrated in *Matsipane*.

Inequality is arguably an inevitable feature of any water policy in any nation with a history of discrimination, and participation rights claims will sometimes fail.[355] Nevertheless, such facts do nothing to counter the advantage such an approach has over a provision rights approach in terms of enforceability and sustainability. Furthermore, the rhetorical and political value of a provision rights approach does not fully counteract the unsustainable practices often associated with that framework, nor does it fully ameliorate the jurisprudential immaturity of that approach.[356]

A third limitation of a participation rights approach to water policy in general is that asserting such rights is costly, which limits the availability of rights-based claims to those who need them most.[357] In his book on poverty and the law, Chris Smith

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352. *See* Matsipane Mosetlhanyane v. Att'y Gen., Civ. App. No. CACLB-074-10, ¶ 25 (Ct. App. Jan. 27, 2011) (Bots.), http://www.escr-net.org/sites/default/files/bushmen-water-appeal-judgement-jan-2011.pdf (stating "the correct interpretation of Section 6 is that an owner or occupier of land intending to sink or deepen any well or borehole thereon and abstract water therefrom for domestic purposes, may do so only in accordance with a water right granted under the Act").

353. *Id*. at 37–39.

354. *See* McCaffrey & Neville, *supra* note 219, at 681 n.3 (describing inadequacy of legal mechanisms for obtaining access to water).

355. *See id.* at 689 (recognizing inherent discrimination against poor communities and women as noted by Judge Tsoka in *Mazibuko*).

356. *See id*. at 692–93 (describing the unsustainability of the Phiri water program, an example of the provision right approach, despite the high political and social goals the policy was intended to serve).

357. *See* Cross, *supra* note 11, at 881 ("Rights enforcement requires

concludes that "legal doctrine and court processes can significantly disadvantage poor people who seek to pursue claims."[358] The cost of litigation limits the effectiveness of rights enforcement regardless of whether the right is framed as a provision right or participation right.[359] However, while much could potentially be done to reduce costs related to, or increase the availability of, adjudication of participation rights, the rights remain an important and comparatively effective avenue for the poor to protect their interests by legal means.[360]

A fourth potential limitation of the participation rights approach in general is the risk of inequitable pricing. Under a provision rights approach, a legal guarantee of a minimum core of water with a maximum price set at an affordable level would, arguably, at least ensure water for all. Without such a guarantee, water pricing and cost recovery efforts, including privatization of water resources and infrastructure, could result in decreased access and increased costs for the poor.[361] Privatization of water as a commodity obviously has challenges, as illustrated by the Bolivean government's approach in Cochabamba.[362] Nevertheless, as noted above, privatization is not the same thing as water pricing.[363] Water pricing, regardless of the method, must take

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resources . . . . Poor individuals and, to a degree, groups representing the poor may lack the resources to advance effectively the right.").

358. SMITH, *supra* note 200, at 5.

359. *See* Cross, *supra* note 11, at 880 ("[R]ights enforcement requires resources. . . . The ability to litigate 'depends on ample purses and effective mobilization of legal services, which vary greatly among different classes, groups, and sections of the country.'" (quoting J. WOODFORD HOWARD, COURTS OF APPEALS IN THE FEDERAL JUDICIAL SYSTEM 17 (1981))).

360. *See* Graber, *supra* note 200, at 787 (arguing judicial process can serve the interests of the poor in certain cases); Douglass Cassel, *Does International Human Rights Law Make a Difference?*, 2 CHI. J. INT'L L. 121, 128–29 (2001) (suggesting the ability to litigate human rights under international treaties bolsters enforcement of government duties).

361. *See* GABRIEL BITRAN & EDUARDO VALENZUELA, WORLD BANK, WATER SERVICES IN CHILE: COMPARING PRIVATE AND PUBLIC PERFORMANCE 3 (2003) (describing rising rates and moral questions following the privatization of Chilean water programs).

362. *See supra* notes 65–71 and accompanying text (describing Cochabamba, Bolivia's privatization of the city's water supply in order to pay for infrastructure improvements).

363. *See* Glennon, *supra* note 40, at 1892–93 (discussing different models of privatization and water pricing).

into account social factors, including the ability of the poor to pay.[364] In any event, "privatization" is a misnomer in almost all cases, given the extensive governmental involvement through regulatory oversight and in concession contracting, and typically as the public trustee of the water resources themselves.[365]

However, this raises the question of whether a provision rights approach is faulty in the abstract, or whether the common formulation and implementation of such rights lead to the problems of enforceability and sustainability discussed in this Article. Arguably, the failure to effectively implement a provision right to water in South Africa, as illustrated in *Mazibuko*, is not evidence of a fundamentally incurable flaw of the provision right framework but, instead, of failure in South Africa to effectively frame and implement that right.[366] In any event, concerns of enforceability are common with respect to a provision rights approach in any context, not just in water policy.[367] Furthermore, concerns related to enforceability are arguably mooted by noting that countries are better off imposing a duty on the government to make progress with respect to provision of essential goods and services even if the duty is effectively unenforceable.[368]

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364. *See* CAMDESSUS REPORT, *supra* note 37, at 18–19 (explaining the World Panel on Financing Water Infrastructure has coined the concept of "sustainable cost recovery," which embraces the goal of full cost-recovery in the long-term while also supporting targeted "pro-poor" policies).

365. *See Private Passions*, *supra* note 67 (explaining factors that affect water privatization models, including government taxation, investment, and social considerations). The Dublin Statement, a United Nations document addressing water sustainability policy, provides that water has "economic value in all its competing uses and should be recognized as an economic good." The Dublin Statement, *supra* note 142, at 4. As such, international law arguably does not view privatization as a per se violation of the human right to water. *See* McCaffrey, *supra* note 25, at 23 (recognizing water as a finite, vulnerable, and essential resource that must be preserved through better—but undefined—government management and the development of human rights law).

366. *See supra* notes 346–51 and accompanying text (discussing *Mazibuko* and the challenges of allocating resources under a provision rights approach).

367. *See* Herman Schwartz, *The Wisdom and Enforceability of Welfare Rights as Constitutional Rights,* 8 HUM. RTS. BRIEF 2, 2–3 (2001) (discussing the inclusion of social and economic rights in constitutions despite concerns about enforceability).

368. *See id.* (explaining that rights may be enforced by the judiciary or legislature, but even if they are unenforced, there is no evidence that non-enforcement negatively affects the enforcement of other rights); Richard A. Posner, *The Cost of Rights: Implications for Central and Eastern Europe—and*

Nevertheless, it is the very effort to comply with this duty that raises the challenge most unique to a rights-based approach to water—sustainability. The challenge of sustainability, arising from concerns unique to water policy, such as the perceived low value of water, its cultural meaning, its nature as a public good and ecological commons, societal reluctance to pay full cost for water services, and the relatively high costs associated with water infrastructure[369] make water a particularly poor candidate for a provision right. Until the challenge of sustainability is effectively addressed in the formulation and implementation of a provision right to water, the participation right in water remains the preferred rights-based framework in water policy.[370]

A fifth limitation of a general participation rights approach to water policy is that a provision rights approach is arguably a more integrated, centralized approach, whereas the participation rights approach is iterative and piecemeal. Such an approach may address the most egregious cases of water policy injustice, but it fails to expand and maintain access to clean, sufficient, affordable, and sustainable water for all.[371] However, governance by litigation, whether under a provision rights or participation rights regime, is by nature iterative and piecemeal.[372] Furthermore, there could be value in prioritizing those instances where egregious water policy failures are attributable not to a

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for the United States, 32 TULSA L.J. 1, 3 (1996) (examining whether the right to government protection is legally enforceable).

369. *See* ROUSE, *supra* note 71, at 151–59 (detailing the challenges inherent to building, regulating, and maintaining water-related infrastructure).

370. *See* Andreas Neef, *Lost in Translation: The Participatory Imperative and Local Water Governance in North Thailand and Southwest Germany*, *in* 1 WATER ALTERNATIVES 89, 105 (2008) (noting the participation rights framework is the preferred model for ensuring water rights, despite the difficulties posed by its implementation). The formulation and implementation of a more robust, sustainable, and enforceable provision right to water is outside the scope of this Article. However, the approach taken by the government of Chile has been one of the most successful in achieving cost-recovery with effective pro-poor policies in water services. *See* BITRAN & VALENZUELA, *supra* note 361, at 2–4 (analyzing the development of Chile's water services system). *See generally* ROUSE, *supra* note 71.

371. *See* Neef, *supra* note 370, at 105–06 (providing examples of the participation rights model's failure to provide equitable water rights for all citizens from data in case studies in Germany and Thailand).

372. *See* Cross, *supra* note 11, at 880–84 (discussing the challenges of rights enforcement though litigation).

lack of state or resources but instead to a violation of participation rights, including a breach of the fiduciary duty owed by the state under the public trust doctrine. Such an iterative approach not only prioritizes the most egregious cases of water stress due to malfeasance but allows for nuanced and adaptive consideration of localized conditions in responding to these cases.

The participation right in water based on the public trust doctrine shares some of the potential limitations of a general participation rights approach to water policy. But the participation right in water based on the public trust doctrine has two additional potential limitations. First, the public trust doctrine is not recognized in all jurisdictions.[373] The public trust doctrine has its roots in Roman law, and continues to enjoy recognition throughout much of Europe, persisting into the common law in the United States.[374] However, there are many nations that do not recognize the public trust doctrine, at least not in a form that would facilitate a participation right in water as described above.[375] Furthermore, equating a breach of the fiduciary duty with the infringement of a participation right is a significant reconceptualization of the public trust doctrine. Nevertheless, the broad acceptance of the public trust doctrine in many nations makes the doctrine sufficiently well-established to support a participation rights claim for many communities suffering from water stress and in search of legal avenues for

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373. *See* Timothy Mulvaney, *Instream Flows and the Public Trust*, 22 TUL. ENVTL. L.J. 315, 344 (2009) (noting that many nations do not recognize the public trust doctrine).

374. *See* THOMAS GLYN WATKIN, A HISTORICAL INTRODUCTION TO MODERN CIVIL LAW 63 (1999) (discussing the origins of the public trust doctrine); *accord* Takacs, *supra* note 335, at 713–15 (detailing the history of the public trust doctrine beginning with Emperor Justinian); Dowie, *supra* note 52 (outlining the public trust doctrine's origins in sixth-century Rome).

375. *See* Mulvaney, *supra* note 373, at 344 ("The law in most nations recognizes some form of the public trust doctrine[.]"); *accord* Phillippe Cullet, *Water Law in a Globalized World: The Need for a New Conceptual Framework*, 23 J. ENVTL. L. 233, 242 (2011) (describing the public trust doctrine as seeking to recognize water rights as requiring regulation and governance and noting the system has the potential to limit arbitrary state action); Stephen McCaffrey, *International Organizations and the Holistic Approach to Water Problems*, 31 NAT. RESOURCES J. 139, 147 (1991) (suggesting a global public trust doctrine as one way to protect common resources).

redress or reform.[376] And what is a participation right, if not the fiduciary duty owed by the state to honor and not unreasonably interfere with interests held by its citizens?

Second, a participation right in water based on the public trust doctrine constitutes a misapplication of the public trust doctrine. The public trust doctrine is most commonly asserted by the state in an effort to exert control over natural resources, impose environmental protections, or avoid claims for compensation related to takings of natural resources.[377] Nevertheless, the public trust doctrine is meaningless as a "trust" if there is no corresponding fiduciary duty of the state in managing resources held in trust, and no such fiduciary duty can meaningfully exist without the possibility of beneficiaries of the public trust enforcing that duty in court.[378]

Perhaps the most obvious objection to a participation rights approach to water policy, both in general and specifically an approach based on the public trust doctrine, is that a participation right does not actually require the delivery of sufficient clean water. So long as governments provide due process and avoid authorizing unreasonable or nonbeneficial uses of water, there is no recourse for those suffering from water stress against their government.[379] A person may not be discriminated against, be deprived of property without due process, or have their freedom of religion circumscribed, but still

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376. *See* Ved. P. Nanda & William K. Ris, *The Public Trust Doctrine: A Viable Approach to International Environmental Protection*, 5 ECOLOGY L.Q. 291, 315 (1976) (citing Chile and Libya as examples of nations not recognizing the public trust doctrine).

377. *See, e.g.*, Ill. Cent. R. Co. v. Illinois, 146 U.S. 387, 464 (1892) (holding the State of Illinois holds fee simple in the lake bed of Lake Michigan and the City of Chicago has the exclusive right to develop Chicago's harbor).

378. *See* Arnold, *supra* note 114, at 849 (describing the American legal system as struggling with multiple theories on water management, including the public trust doctrine, which requires the government and collective citizenry to be responsible stewards of water resources); Robin Kundis Craig, *Adapting to Climate Change: The Potential Role of State Common-Law Public Trust Doctrines*, 34 VT. L. REV. 781, 843 (2010) (referencing the Alaska Supreme Court as defining the public trust doctrine as the state holding "resources in trust for public use and owing a fiduciary duty to manage these resources for the common good").

379. *See* Sax, *supra* note 51, at 471 (describing potential limited governmental responsibilities under a public trust doctrine).

be dying of thirst or cholera. Such a person is, in effect, reading Pushkin without boots on his feet. A participation right in water may maintain and improve control over water resources, but it fails to ensure provision. The next Subpart will address how a participation rights approach can do more than merely secure a degree of control, but instead can achieve equitable, sustainable, and affordable provision of sufficient clean water.

C. A Participation Right in Water and Water Provision

A participation right in water is more than a simple strategic decision of selecting the immediately binding and enforceable right. It is also more than the cautious approach of avoiding issues of sustainability while still making use of rights-based norms and rhetoric.[380] A participation right in water would lead to equitable, sustainable, and affordable provision of sufficient clean water by fostering participatory governance in formulating and implementing water policy. A participation right in water gives those suffering most from water stress the necessary legal leverage to secure a place at the stakeholder table in water policy development.

This leverage facilitates a broadly inclusive stakeholder group, with the least advantaged empowered by an enforceable participation right. This inclusivity in participatory governance facilitates the kind of public discourse and generation of binding norms associated with the constructivist approach discussed above.[381] Individuals or communities suffering from water stress who may otherwise be marginalized in water policy development use the participation right in water to enforce a transparent and inclusive process.[382] Such a process builds a "normative community" within which values of equity and sustainability develop organically, ultimately leading to equitable and

380. *See supra* notes 101–03 and accompanying text (arguing that participation rights are citizen's rights that serve as protection against government interference except in small, legally derived instances).

381. *See supra* note 343 and accompanying text (defining constructivism as "[s]upranational organizations teach[ing] national governments how to govern by means of developing and encouraging international discourse and norms").

382. *See* Zetland, *supra* note 32, at 15–17 (describing examples of models for greater participation and the help these models bring to poorer communities).

sustainable water policy and provision of sufficient and affordable clean water.[383] This process has been observed in terms of building normative communities valuing ecosystem services provided by wetlands, which ultimately evolve into regulatory protections for threatened ecosystems.[384] A participation rights approach could be best suited for ensuring diverse- and representative-stakeholder participation because of the focus of participation rights on equal protection and nondiscrimination norms.[385] A similar process could be applied to the valuation of drinking water resources and infrastructure, building toward greater acceptance of water pricing, conservation, and cost recovery measures, decreasing illegal connections, and increasing political support for capital expenditures to improve and maintain water infrastructure.[386] The procedural remedies for violations of the participation right in water thus lead to changes in public discourse and values and, ultimately, to substantive improvements in policies addressing water stress.

A provision rights approach is arguably a more integrated, centralized approach, whereas the participation rights approach is iterative and piecemeal. A participation rights approach may address the most egregious cases of water-policy injustice, such

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383. *See* Kenneth Abbot & Duncan Snidal, *Pathways to International Cooperation, in* THE IMPACT OF INTERNATIONAL LAW ON INTERNATIONAL COOPERATION: THEORETICAL PERSPECTIVES 56–57 (Eyal Benvenisti & Moshe Hirsch eds., 2004) (describing progressively binding norms forming incrementally through increasingly stringent treaty systems to which countries agree after growing accustomed to the previous treaty).

384. *See* Jutta Brunnee & Stephen J. Toope, *Environmental Security and Freshwater Resources: Ecosystem Regime Building*, 91 AM. J. INT'L. L. 26, 56–57 (1997) (evaluating, empirically, how improved procedures and access to stakeholder processes increased public participation at the local level in wetlands management, ultimately leading to improved substantive outcomes in resource management).

385. *See* Zetland, *supra* note 32, at 15 (suggesting that a transparent process for distributing water rights "with significant participation by private owners would produce better outcomes than the current norm of favoring political and economic elites" as it incentivizes wider participation and reduces corrupt government influences).

386. *See id.* at 15–16 (arguing that mass participation in the water market would decrease externalities, limit value-decreasing fights among interested groups (therefore stabilizing valuations), and remove value calculation responsibilities from partisan political bodies). Citizens would allocate water through price policies based on collective societal values. *Id.*

as disconnection or rate increases on ethnic, religious, or political grounds, but fails to expand and maintain access to clean, sufficient, affordable, and sustainable water for all.[387] Distinct communities facing different water challenges would bring claims of a participation right to water, each requiring redress individually without a holistic, coordinated approach typical of a centralized provision right. However, such an iterative approach allows for nuanced and adaptive consideration of localized conditions and encourages broad stakeholder participation in water policy development, thereby developing informal norms that ultimately translate into enforceable rights and duties.[388]

Beyond facilitating participatory and transparent governance, a participation rights approach to water policy also facilitates policy experimentation. Experimentalism is a part of so-called "new governance" methods adapted from the industrial management context.[389] Rather than the top-down hierarchical approach typical of government, and illustrated by the centralized character of a provision rights approach to water policy, new governance adopts an adaptive and collaborative model.[390] New governance approaches favor process-oriented

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387. *See id.* (noting potential failures of a system where citizens are the owners of water—as opposed to the government—including inevitably that those who want to consume more will simply be able to purchase it).

388. *See id.* (noting that broader inclusion through property rights leads to increased participation); Brunnee & Toope, *supra* note 384, at 31–33 (discussing how broader participation can lead to the establishment of legally enforceable rights). Brunnee and Toope, in writing about a constructivist approach to freshwater ecosystem preservation, refer to these normative communities as "contextual regimes," in which informal norms evolve into legally binding norms. *Id.* at 33.

389. *See* Alana Klein, *Judging as Nudging: New Governance Approaches for the Enforcement of Constitutional Social and Economic Rights*, 39 COLUM. HUM. RTS. L. REV. 351, 393–94 (2008) ("Experimentalist approaches are part of a constellation of so-called 'new governance' methods originally advocated in industrial and managerial context, and since applied to fields including government regulation of social problems." (citation omitted)); Jody Freeman, *Collaborative Governance in the Administrative State*, 45 UCLA L. REV. 1, 92–93 (1997) (advocating experiments in agency governance that facilitate collaboration between agencies and private interests as a means of field testing regulatory policies).

390. *See* Klein, *supra* note 389, at 394 ("Instead of a top-down, hierarchical rule-based system . . . the new governance school posits a more participatory and collaborative model of regulation in which multiple stakeholders, including, depending on the context, government, civil society, business and nonprofit

strategies, similar to the remedies associated with a participation right in water based on the public trust doctrine.[391]

Encouraging policy experimentation is also part of the new governance approach, as is "adaptive management," the resource management decision-making corollary of policy experimentation.[392] Adaptive management is "a systematic process for continually improving management policies and practices by learning from the outcomes of implemented management strategies."[393] This experimental and adaptive approach requires multiple institutions or jurisdictions implementing different, parallel strategies to achieve the same policy end.[394] These separate institutions or jurisdictions collect data and compare costs, benefits, and outcomes, including evaluating whether success or failure can be reproduced in other institutions or jurisdictions or if success or failure could be attributed to unique localized or institutional issues.[395]

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organizations, collaborate to achieve a common purpose.").

391. *See id.* ("In order to encourage flexibility and innovation, 'new governance' approaches favor more process-oriented policy strategies like disclosure requirements, benchmarking and standard-setting, audited self-regulation, and the threat of imposition of default regulatory regimes to be applied where there is a lack of good-faith effort at achieving desired goals.").

392. *See* Orly Lobel, *The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought*, 89 MINN. L. REV. 342, 430–31 (2004) (describing adaptive management as employing advanced strategies for monitoring and governing resource use and involving multiple public and private entities); Michael Dorf & Charles Sabel, *A Constitution of Democratic Experimentalism*, 98 COLUM. L. REV. 267, 439 (1998) (discussing experimental agency branches).

393. Rhett B. Larson, *Innovations and International Commons: The Case of Desalination Under International Law*, 2012 UTAH L. REV. 759, 800 (2012) (quoting Claudia Paul-Wostl, *Transitions Towards Adaptive Management of Water Facing Climate and Global Change*, 21 WATER RESOURCE MGMT. 49, 51 (2007)); *see also* DEP'T OF THE INTERIOR, ADAPTIVE MANAGEMENT TECHNICAL GUIDE v (2009) (stating that adaptive management is "a decision process that promotes flexible decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood . . . . It is not a 'trial by error' process, but rather emphasizes learning while doing" (citations omitted)).

394. *See* Klein, *supra* note 389, at 395 (describing institutions implementing parallel policies to achieve similar ends, creating increased data and allowing citizens to assess the utility of government services).

395. *See id.* (describing an experimentalist program).

Courts operating under an experimentalist approach, including a participation right in water based on the public trust doctrine, do not come up with a one-size-fits-all, once-and-for-all solution, but instead enforce a participatory, deliberative process in each individual case.[396] Where individual cases are resolved differently based on that process and data is gathered, analyzed, and compared to approaches in other cases, best practices for individual institutional and local conditions will develop and become evident.[397] Where local water management institutions fail to engage in this participatory experimentalist approach, courts can impose best practices from other outcomes until the proper process is completed.[398] In this sense, an experimentalist and constructivist approach is procedural because courts ask "what entities, jurisdictions, and agencies did to look for solutions, rather than whether the solutions were the right ones."[399] This relieves the court from having to make the sort of technical determinations for which the South African Constitutional Court considered courts so ill-suited in its decision in *Mazibuko*.[400]

There is some evidence that an approach of court enforcement of procedures based on these theories of new governance and constructivism yield positive results in water

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396. *See id.* at 396 (arguing that a court "in an experimentalist system . . . does not come up with once-and-for-all solutions to threats against individual rights" but, rather, assesses individual cases and ensure the state is engaging in a deliberative process).

397. *See id.* ("[W]here entities engage in the required consultative and deliberative process, generate enough data on the effectiveness of their chosen mechanisms to make rolling best practice standards possible, and adopt the best practices of other localities or justify deviations, courts will defer to these choices.").

398. *See id.* ("Where local entities fail to engage in the experimentalist project, a court can impose a 'penalty default'—its own benchmark or minimum—using whatever evidence is available to it in the litigation or, where possible, with reference to those generated from other localities' experiments.").

399. *Id.* at 396–97 (quoting Dorf & Sabel, *supra* note 392, at 286–87). *But see* John C. Peck, *Groundwater Management in Kansas: A Brief History and Assessment*, 15 KAN. J.L. & PUB. POL'Y 441, 457–60 (2006) (noting the limitations of a decentralized participatory approach).

400. *See Mazibuko v. City of Johannesburg*, 2010 (4) SA 1 (CC) at 30 para. 61 (S. Afr.) ("[I]t is institutionally inappropriate for a court to determine precisely what the achievement of any particular social and economic right entails . . . .").

policy. Commentators have noted the success of the European Union (EU) Water Framework Directive in establishing an enforceable right of stakeholders to participate in the development of water policy, and that such enforcement has improved access and sustainability.[401] The success of a participatory, localized, and experimental process based on constructivist theories and new governance approaches is not unique to the EU.[402] An empirical analysis of forty-seven case studies around the world involving a similar approach has demonstrated improvements in indicia of sustainable environmental stewardship.[403]

A rights-based approach to water policy is not about an expansive interpretation of "rights" but is about participatory governance.[404] Without the legal leverage of rights, marginalized individuals and communities have limited recourse and little voice in addressing the impacts of water stress, which are disproportionately felt by the disenfranchised or economically disadvantaged.[405] An enforceable participation right in water empowers disadvantaged groups to influence water policy without requiring unsustainable water provision that fails to account for localized conditions.[406] The growing global water crisis

401. *See* Joanne Scott & Susan Sturm, *Courts as Catalysts: Re-Thinking the Judicial Role in New Governance*, 13 COLUM. J. EUR. L. 565, 580–82 (2007) (describing the Water Framework Directive as an example of new governance, which increases recognition of participation rights).

402. *See* Jens Newig & Oliver Fritsch, *Environmental Governance: Participatory, Multi-Level—and Effective?* 197–214 (Leibniz Information Centre for Economics, Paper No. 15/2008, 2009), *available at* http://hdl.handle.net/10419/44744 (analyzing case studies from forty-seven countries and finding the participation of citizens in natural resource and sustainability programs improved environmental outcomes).

403. *Id.* For an illustration of the challenges of implementing a participatory, localized approach to water management, see Neef, *supra* note 370, at 89–110 (detailing a comparative case study of water governance in Thailand and Germany).

404. *See* McCaffrey & Neville, *supra* note 219, at 692 ("A participatory process may be the key to effective implementation of [water] rights").

405. *See supra* note 1 and accompanying text (defining water stress).

406. *See* McCaffrey & Neville, *supra* note 219, at 693 (noting governments' ability to increase their capacity to deliver on citizens' water rights by developing collaborative relationships with community leaders and including communities in decision making so as to extend resources and overcome capacity barriers).

is not a crisis of nature or lack of available technology: there is enough water, and the capacity to produce enough clean water to meet existing and expected global populations.[407] The water crisis is a "crisis of governance."[408] A participation right in water facilitates a broadly inclusive normative community by giving the least advantaged the legal leverage necessary to engage in the stakeholder process at the local level, thereby promoting an adaptive and nuanced water policy.

V. Conclusion

A rights-based framework has a potentially important role to play in advancing sustainable and equitable water policy. The dominant provision right framework raises serious concerns of sustainability and enforceability.[409] The critical evaluation of the provision right approach in this Article assumes the typical framework that fails to appropriately account for full cost-recovery and environmental concerns.[410] Further research is needed on whether and how a provision right to water could potentially be framed to adequately incorporate concerns for full cost recovery, public health, infrastructure financing, and environmental sustainability.

A participation rights framework avoids the issues of sustainability and enforceability associated with the provision right to water while still maintaining the advantage of a rights-

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407. *See* Deborah Zabarenko, *River Basins Could Double Food Production*, REUTERS (Sept. 6, 2011; 10:38 PM), http://www.reuters.com/article/2011/09/27/us-rivers-food-idUSTRE78Q0BZ20110927 (arguing that, while there is water scarcity in some places, the issue is not actually water scarcity, but the political will and ability to efficiently and fairly allocate water rights) (on file with the Washington and Lee Law Review).

408. *See* A. Mukherji, *Is Incentive Use of Groundwater a Solution to the World's Water Crisis?*, *in* WATER CRISIS: MYTH OR REALITY? 188 (P. Rogers, M Ramón Llamas & L. Martínez-Cortina eds., 2006) (describing the water crisis as "mainly a crisis of governance" (internal quotes omitted) (citation omitted)).

409. *See supra* notes 171–77 and accompanying text (discussing the enforceability of a provision right to water, specifically economic and political limitations and courts' limited capacity to enforce provision rights and illustrating these limitations through a discussion of *Mazibuko*).

410. *See supra* notes 189–94 and accompanying text (discussing limitations of adjudicating provision rights, including courts' inability to take environmental and factors into account due to the rigid legal standards applied).

based framework—that of prioritizing water policy, promoting equity in water provision, and holding governments accountable for mismanagement of water resources.[411] By grounding the participation right in water in the public trust doctrine, the rights-based approach to water policy is inexorably tied to the most important and difficult consideration to integrate in a rights-based framework—sustainability.[412] More research is needed into the costs and benefits of different participation rights approaches to water resource claims and which provide the best outcomes for disadvantaged people with the fewest costs to the formulation of an integrated national water policy. In particular, more research is required to understand how the public trust doctrine relates to participation rights claims and how different interpretations and applications of the public trust doctrine in different jurisdictions could impact the development of a participation right in water.

The objectives of water policy—clean, sustainable, sufficient, and affordable water for all—can be facilitated by a participation right in water. Participatory governance encourages equitable water provision by empowering the least advantaged suffering disproportionately from water stress.[413] As a right with a procedural remedy, the participation right in water achieves these objectives without sacrificing sustainability or enforceability. This is particularly true for a participation right in water based on the public trust doctrine because that doctrine imposes an enforceable fiduciary duty on the state to manage water in a sustainable manner. The participation right in water thus provides a potentially powerful tool for addressing the global water-stress crisis.

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411. *See supra* note 278 and accompanying text (arguing that participation rights, rather than provision rights, involve government forbearance and do not raise economic and sustainability issues).

412. *See supra* notes 317–23 and accompanying text (suggesting that the participation rights doctrine is being integrated into international law via the public trust doctrine and arguing that this link has helped move environmental protection policies into the forefront of political debates in some countries).

413. *See supra* notes 167–69 and accompanying text (discussing *Mazibuko*, a primary example of the empowerment of economically disadvantaged populations challenging established water laws).