ADAPTING HUMAN RIGHTS

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ABSTRACT

Governmental leaders, scholars, and activists have advocated for human rights to food, water, education, health care, and energy. Such rights, also called positive rights, place an affirmative duty upon the state to provide a minimum quantity and quality of these goods and services to all citizens. But food, education, water, and health care are so different—indeed, how they are produced, consumed, and financed—that the implementation of a positive right must be adapted to the distinctive characteristics of the good or service it guarantees. The primary aims of this adaptive implementation are transparency, enforceability and sustainability in the provision of positive rights. Only by adapting a positive right to its policy environment can such a right function as a viable means of protecting disadvantaged members of society. This article uses the example of positive rights to public utilities, such as water and energy, to illustrate adaptive implementation of positive rights. In doing so, this article explains why and how a positive right must be adapted to the unique policy environment of a given public utility.

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TABLE OF CONTENTS

Introduction ................................................................. 2
I. An Overview of Positive Rights and Public Utilities .............. 7
   A. Distinguishing Positive Rights from Negative Rights .......... 8
   B. The Characteristics of Public Utilities .......................... 11
   C. Applying Positive Rights to Public Utilities ................... 13
II. Why Positive Rights to Public Utilities Require Adaptation ....... 20
   A. Positive Rights to Public Utilities and Enforceability ....... 22
   B. Positive Rights to Public Utilities and Sustainability ....... 25
   C. Positive Rights to Public Utilities and Transparency ....... 32
III. How to Adapt Positive Rights to Public Utilities .................. 37
   A. Specialized Tribunals for Public Utilities Cases ............... 38
   B. Block Tariffs and Direct Subsidies in Public Utilities ....... 41
   C. Effective Concession Contracts for Public Utilities .......... 44
Conclusion ........................................................................... 49

INTRODUCTION

By 2030, population growth, economic development, and global climate change will increase demand for food, water, and energy by fifty percent. In response to these pressures, and growing concerns for wealth inequities, many scholars, activists, and government officials have advocated for, or enacted, a human right to food, water, sanitation, and energy. These human rights are typically formulated as positive rights, an affirmative obligation of the state to provide a minimum quantity and quality of these goods and services to all citizens. The rationale behind a positive right is that it guarantees

3. The distinction between negative and positive rights was notably developed in I.
the provision of goods and services essential to basic human welfare, in effect, advancing the achievement of an equitable and free society.\footnote{Rhett B. Larson, \textit{The New Right in Water}, 70 WASH. & LEE L. REV. 2181, 2194–2200 (2013). See generally Eric A. Posner, \textit{Human Welfare, Not Human Rights}, 108 COLUM. L. REV. 1758 (2008) [hereinafter \textit{New Right in Water}] (arguing that human rights create efficiency and benefit overall human welfare).} Public utilities provide these kinds of essential goods and services, including sanitation, water, and energy. But how such a right should be implemented depends on the unique characteristics of the goods or services the right guarantees. For example, applying a positive rights approach to public utilities can potentially be perversely counterproductive.\footnote{David A. Skeel, Jr., \textit{When Should Bankruptcy Be An Option (For People, Places, or Things)?}, 55 WM. & MARY L. REV. 2217, 2220 (2014).}

Recent events in the City of Detroit provide an example of why a positive right connected to public utilities is problematic. In 2013, Detroit declared bankruptcy in the wake of mounting debt and declining revenues.\footnote{John Reeves, \textit{19 Shocking Facts About Detroit’s Bankruptcy}, USA TODAY (Dec. 3, 2013), available at http://www.usatoday.com/story/money/personalfinance/2013/12/02/19-facts-about-detroit-bankruptcy/3823355/.} The declining revenues were attributable in part to the difficult financial situations faced by many citizens of Detroit.\footnote{Alisa Priddle & Matt Helms, \textit{Bankruptcy Judge Tells Detroit to Address Water Shutoffs}, USA TODAY (July 16, 2014), available at http://www.usatoday.com/story/news/nation/2014/07/16/detroit-bankruptcy-water/12734925/} Both the city and its citizens were impacted in particular in water services, with many delinquent accounts costing the city millions of dollars.\footnote{Detroit has 175,000 residential water accounts, with 80,000 accounts past due, owing a total of $43 million (an average of $540 per account). Matthew Dolan, \textit{Detroit’s Water Cutoffs Spark Protests}, WALL ST. J. (July 18, 2014), available at http://www.wsj.com/articles/detroits-water-cutoffs-spark-protests-1405714429.} Detroit began shutting off water services to these delinquent accounts, resulting in city-wide protests.\footnote{Id.} The city noted that cost recovery improved as consumers paid overdue bills or entered into a repayment program after being shut off.\footnote{Id.} Nevertheless, the city ceased cutting off water services after the judge in Detroit’s
bankruptcy proceedings, as well as the United Nations, protestors, and commentators raised concerns that cutting off water violates a fundamental human right.11 Similar large protests erupted in late 2014 in response to Ireland’s imposition of new water fees as part of its austerity program, with opponents arguing that the water fees violate human rights.12

Does the protection of human rights mean that the City of Detroit is prohibited from cutting off consumers who do not pay their water bills, or that Detroit is required to provide a certain amount of drinking water for free, or far below cost? The design, development, construction, and maintenance of traditional water treatment and distribution systems are expensive, and the energy demands and costs for water treatment and transportation are high.13 How can an insolvent Detroit afford to provide free or cheap water without ultimately sacrificing the integrity of the system, the quality of the water, and the financial health of the city?

The problem of higher consumption of cheap water is all the more difficult where water is scarce. The challenge of not recovering costs for supplying water faced by places like Detroit and Ireland is then aggravated by a low water supply—in that case, the city risks running out of money and also running out of water. For example, the City of San Bernardino, located in drought-stricken California, recently declared bankruptcy like Detroit.14 Around the same time, California’s “Human Right to Water Bill” came into effect.15 That bill recognizes that “every human being has the right to safe, clean, affordable, and accessible water.”16 Does such a right require free or

16. CAL. WATER CODE § 106.3(a) (West 2012); see generally INTERNATIONAL HUMAN RIGHTS LAW CLINIC, UNIV. OF CAL., BERKELEY, SCHOOL OF L., THE HUMAN RIGHT TO
low-priced water, and if so, how much water and for whom? If consumers do not internalize the costs of consumption associated with a positive right to water, then they will have little incentive to conserve. How could San Bernardino meet the requirements of California’s human right to water without aggravating or prolonging both money and water scarcity?

Similar problems also arise in the case of energy utilities. Consumers obtaining cheap energy via a positive right will have little incentive to conserve. Furthermore, the provider will have trouble recovering costs. Combined, cheap energy under a positive right will degrade infrastructure (making it less efficient) and aggravate greenhouse gas emissions contributing to climate change.

This article argues that the implementation of positive rights must be adapted to the unique policy environment in which such rights are implemented, so as to ensure that their provision is sustainable, transparent, and enforceable. These conditions are like air, light, and water to a living organism—without them, life cannot survive. And just as living organisms must adapt to their environment in order to thrive, so too must positive rights adapt to their unique policy environment. Just as birds adapt to life in mountains, islands, or deserts, so too must positive rights adapt to the different policy environments of health care, education, food, and water. To achieve the goals of transparency, enforceability, and sustainability, a positive right must be adapted to the unique characteristics of the good or service it guarantees. This Article uses the example of positive human rights to public utilities to illustrate the need for the adaptive implementation of such rights.

The characteristics of public utilities like water treatment and


distribution, wastewater collection and treatment, and the transmission of energy, create unique challenges to the implementation of positive rights.\textsuperscript{20} Public utilities have high initial capital requirements that effectively bar competitors from entering the market.\textsuperscript{21} This “natural monopoly” limits competition as a means for price control.\textsuperscript{22} Without market forces to suppress prices, government regulators typically set rates on public utilities to avoid monopolistic pricing.\textsuperscript{23} However, these rates must still be set high enough to recover the cost of service and provide a rate of return that will attract investment and the expertise necessary for public utilities management.\textsuperscript{24} Furthermore, the rates must be set high enough to encourage conservation.\textsuperscript{25} But a positive right to public utilities may drive rates too low, reducing necessary cost-recovery for providers and cost-internalization for consumers.\textsuperscript{26} Furthermore, courts adjudicating a positive right to public utilities may lack the institutional competence to deal with the highly technical questions associated with rate-setting and natural resource management.\textsuperscript{27} With these considerations in mind, the implementation of positive rights to

\textsuperscript{20} See New Right in Water, supra note 4, at 2188 (explaining that adopting formal water rights in India did not improve access to water); see also Malgosia Fitzmaurice, The Human Right to Water, 18 FORDHAM ENVTL. L. REV. 537, 581 (2007) (“The problem of a human right to water, being a natural monopoly, raises more emotions that any other issue relating to economic, cultural, and social human right, such as housing and the eradication of poverty. . . .”).

\textsuperscript{21} Thomas W. Hazlett, Private Monopoly and the Public Interest: An Economic Analysis of the Cable Television Franchise, 134 U. PA. L. REV. 1335, 1372 (1986).

\textsuperscript{22} Id.; see also Michael K. Kellogg, John Thorne & Peter W. Huber, Telecommunications in Jericho, 81 CAL. L. REV. 1209, 1213–14 (1993) (characterizing telecommunications as a protected industry whose monopoly bars competitive prices).

\textsuperscript{23} Howard A. Shelanski, Adjusting Regulation to Competition: Toward a New Model for U.S. Telecommunications Policy, 24 YALE J. ON REG. 55, 81 (2007).

\textsuperscript{24} Id.; see also Richard J. Pierce, Price Level Regulation Based on Inflation is Not an Attractive Alternative to Profit Level Regulation, 84 NW. U. L. REV. 665, 665–79 (1990).


food, education, or health care will require different adaptations, just as the policy environment of different positive rights will require different adaptations to achieve transparency, enforceability, and sustainability.

This Article proceeds in three parts. Part I describes positive rights and distinguishes them from negative rights, and explains how positive rights have been applied to public utilities. Part II explains how the characteristics of public utilities often make a positive rights approach unenforceable, inequitable, and/or unsustainable, and why they therefore require adaptive implementation. Part III proposes and evaluates three potential reforms that should be used to effectively adapt the implementation of a positive right to public utilities, and avoid or mitigate the problems associated with such rights.

I. AN OVERVIEW OF POSITIVE RIGHTS AND PUBLIC UTILITIES

People are rarely “against” sustainability, transparency, or human rights when they are considered separately or in the abstract. These elements should be the primary aims of any human right. However, when considered together, and in light of practical implementation, these elements can often form a combustible mixture. The viability of any positive right depends not only upon the policy arena in which the right will be applied, but also upon tailoring the implementation to that policy arena. The tailoring of regulation and judicial oversight to the characteristics of the good or service guaranteed by a positive right is known as an adaptive implementation. A positive right to education or food should not be treated the same as the human right to public utilities, but positive rights laws should be implemented to the unique characteristics of the good or service guaranteed by the state.

This Part lays the foundation for understanding why the implementation of positive rights in public utilities often fail and how positive rights can be tailored to the public utilities arena by (A) explaining positive rights and distinguishing them from negative rights; (B) explaining public utilities and differentiating them from other policy arenas in which positive rights are implemented; and (C)

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explaining and evaluating how positive rights have been implemented in the public utilities context.

A. Distinguishing Positive Rights from Negative Rights

The term “right” is often applied to a policy aim without regard to its legal implications, simply being used as a moniker by policy entrepreneurs to indicate high importance. Additionally, this term has obvious rhetorical value in public policy debates and meaning within the literature on natural rights. For purposes of this article, however, a “right” is a legally established and enforceable obligation or restraint imposed on government and held by citizens, either individually or collectively.

Rights are often divided into two categories – positive rights and negative rights. The distinction is, superficially, intuitive and straightforward. Negative rights forbid the government from engaging in certain actions such as interfering with speech or discriminating on the basis of race. Positive rights require the government to engage in certain actions, as with the provision of health care or education. On closer examination, however, the distinction is problematic. For example, the enforcement and enjoyment of any negative right requires a minimum level of health, education, civic participation

31. Cross, supra note 3, at 860.
32. See generally Mark Tushnet, An Essay on Rights, 62 TEXAS L. REV. 1363 (1984) (discussing four contemporary critiques to the liberal theory of rights); see also Susan Bandes, The Negative Constitution: A Critique, 88 MICH. L. REV. 2271 (1990) (critiquing the notion that the Constitution ensures citizens only negative liberties); but see New Right in Water, supra note 4 (arguing that rights could more accurately be divided into “provision rights” and “participation rights”).
33. See, e.g., C. FRIED, RIGHT AND WRONG 110 (1978) (analyzing individual rights within community morality); see also Robin West, Rights, Capabilities, and the Good Society, 69 FORDHAM L. REV. 1901, 1911 (2001) (asserting that citizens’ individual constitutional rights in liberal democracies should ensure their government commitment to fundamental human welfare).
35. See Gerald C. MacCallum, Jr., Negative and Positive Freedom, 76 PHIL. REV. 312, 314 (1967) (arguing that there is no useful distinction between abstract and theoretical notions of positive and negative rights).
opportunities, judicial process, and security. Yet arguably, that minimum level of government provision of goods and services would not be achieved without restrictions on government interference with speech, assembly, liberty, and property. Additionally, any legal right, whether positive or negative, requires the government to provide something. Even an ostensibly negative right like freedom of speech arguably requires the state provide a forum in which that right can be delineated, adjudicated, and enforced. In a sense, therefore, a right is like a magnet, having both a positive and negative pole.

Despite this “rights polarity,” the distinction between positive and negative rights remains useful. In international law, the distinction is often drawn between “civil and political rights” (roughly the corollary of negative rights) and “economic, social, and cultural rights” (roughly the corollary of positive rights). Civil and political rights in international law have proven relatively uncontroversial and effectively enforceable, with an existing protocol for bringing claims of rights violations to international tribunals. Economic, social, and cultural rights, on the other hand, lack a binding protocol for adjudicating claims, and require states only to progressively realize these rights subject to available resources.

36. See Theodor Meron, Norm Making and Supervision in International Human Rights: Reflections on Institutional Order, 76 Am. J. Int’l L. 754, 757 (1982) (noting that developing countries must achieve “a level of economic development that enables them to implement social rights, and that those states must therefore give priority to social rights and to economic and social development in order to facilitate the realization of civil and political rights.”).

37. Id. at 756–58 (noting that despite the need to promote social and economic rights, civil and political rights “lend themselves. . . to immediate implementation.”).

38. Cross, supra note 3, at 864–65 (noting that “all rights, including negative ones, require government enforcement.”).

39. Id.; see also New Right in Water, supra note 4, at 2203.


rights law illustrates that, while the conceptual distinction between positive and negative rights is difficult to draw, practical differences in enforceability and the political viability of implementation make the distinction relevant.\textsuperscript{44} The question still remains how to draw the practical distinction.\textsuperscript{45}

The distinction I propose is based on the aim of the right. Where the aim of a right is the provision of a primary good, it is a positive right; otherwise, it is a negative right. For purposes of distinguishing positive and negative rights, primary goods are the minimum amount of those goods and services necessary for basic human welfare and opportunity for civic engagement – a minimum quantity and quality of water, food, shelter [including light and heat], health care, and education.\textsuperscript{46}

The aim of positive rights is to make primary goods, those goods and services essential for basic human dignity, affordable and accessible to all.\textsuperscript{47} It is an approach intended to “put first things first” – to provide a baseline level of health and security, without which any other right would be meaningless.\textsuperscript{48} It is born of the intuition that the state cannot approach someone dying of thirst or freezing to death and say, “[a]t least you still have the writ of habeas corpus.” The intent of distinguishing positive and negative rights in this paper is not to advocate for or against positive rights. Instead, it is to define the positive rights approach in order to understand why it is problematic when applied to public utilities, and whether such problems are surmountable.

\textsuperscript{44} See Sharmila L. Murthy, \textit{The Human Right(s) to Water and Sanitation: History, Meaning, and the Controversy Over-Privatization}, 31 BERKELEY J. INT’L L. 89, 113–14 (2013) (summarizing the obligations associated with a human right to water under international law).

\textsuperscript{45} Cross, \textit{supra} note 3, at 866 (proposing a simple question to reveal the distinction between positive and negative rights — “If there was no government in existence, would the right be automatically fulfilled?”). But this test requires an assumption of the absence of government that does little to help formulate a practical distinction in a world of government protected rights.

\textsuperscript{46} JOHN RAWLS, \textit{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.”); see also New Right in Water, \textit{supra} note 4, at 2200–01.

\textsuperscript{47} Wenonah Hauter, \textit{The Limits of International Human Rights Law and the Role of Food Sovereignty in Protecting People from Further Trade Liberalization under the Doha Round Negotiations}, 40 VAND. J. TRANSNAT’L L. 1071, 1083 (2007).

\textsuperscript{48} Isaiah Berlin, \textit{Two Concepts of Liberty}, in \textit{Four Essays on Liberty} 118, 121–22 (1969); see also New Right in Water, \textit{supra} note 4, at 2200.
B. The Characteristics of Public Utilities

To understand why the application of a positive right to public utilities is problematic, and to evaluate how those problems might be addressed, it is necessary to understand the nature of public utilities. For the purpose of this article, public utilities are natural monopolies directly dependent upon exhaustible natural resources. This definition includes, in particular, water treatment and distribution, wastewater collection, treatment and disposal, and energy transmission.

A natural monopoly occurs when (1) there are significant barriers to entry into the market, particularly due to large initial capital requirements that effectively bar potential competitors; and (2) large economies of scale, such that there are very low marginal costs, allowing the natural monopoly to serve additional consumers more efficiently than any potential competitor. Water, sanitation, and electrical transmission are examples of natural monopolies. The high initial capital requirements effectively bar competitors from the market, and large economies of scale allow providers to serve additional customers at low marginal costs. It is difficult for a newcomer to compete with a system where the costly plants, pipes, and lines have already been laid, and when it is so much cheaper to simply extend the existing system to serve one more customer than to attempt to compete from scratch.

These natural monopolies create challenges with respect to pricing, particularly where they involve private property that has become “affected with a public interest,” or private property that the general public must be able to access. In such cases, consumers have

49. Water remains a part of the hydrologic cycle, and thus is in some sense “renewable.” However, where consumption outstrips natural replenishment, the water source is effectively exhausted. See, e.g., Christine A. Klein, On Integrity: Some Considerations for Water Law, 56 ALA. L. REV. 1009 (2005).


52. Id.; see also Herbert Hovenkamp, Technology, Politics, and Regulated Monopoly: An American Historical Perspective, 62 TEX. L. REV. 1263, 1287 (1984) (explaining the principle that incumbent operators often wish to make outsiders’ entry into the market difficult).

53. See Munn v. Illinois, 94 U.S. 113, 124–25 (1877) (explaining when “one devotes his property to a use in which the public has an interest, he, in effect, grants to the public an interest in that use, and must submit to be controlled by the public for the common good, to the extent of the interest he has thus created”).
no choice but to buy from the monopoly.\textsuperscript{54} Without traditional market forces to restrain pricing, natural monopolies are typically subject to rate-setting by the state to curb monopolistic pricing.\textsuperscript{55} Where the natural monopoly is not a state agency, but is instead a regulated private entity, it has a quid pro quo relationship with the state – the state grants a monopoly to provide a certain service to a certain geographic area over a specified period of time (often through a “concession contract”) in exchange for the utility company assuming certain affirmative duties.\textsuperscript{56} These common law duties can largely be summed up as obligations to fairly and equitably serve all similarly situated customers upon reasonable terms, with contract terms related to service construed strictly in favor of the public.\textsuperscript{57} The state typically determines the reasonableness of prices and the scope of the monopoly, either through the regulatory process, the concession contract, or some combination of the two.\textsuperscript{58}

While there are many approaches to rate setting, the process typically involves setting tariffs to allow the utility to recover the cost of service and provide a rate of return for the utility company on its large initial fixed-cost capital investment (called the rate base) to satisfy investors and creditors.\textsuperscript{59} The rate of return must be sufficient to ensure institutional confidence in the financial integrity of the utility company.\textsuperscript{60} Therefore, the object of price regulation is to achieve a balance of production and profit for the utility company while ensuring that prices charged to consumers are reasonable.\textsuperscript{61}

Other types of infrastructure, which have been historically

\begin{itemize}
\item \textsuperscript{54} See generally id. (implying that consumers must buy from natural monopolies where they exist).
\item \textsuperscript{55} Posner, supra note 51, at 611.
\item \textsuperscript{57} City of Mishawaka v. American Elec. Power Co., 465 F. Supp. 1320, 1335 (N.D. Ind. 1979); see also United Fuel Gas Co. v. Railroad Comm’n of Kentucky, 278 U.S. 300, 309 (1929) (“The primary duty of a public utility is to serve on reasonable terms all those who desire the service it renders.”); see generally Charles River Bridge v. Warren Bridge, 36 U.S. 420 (1837) (holding that public utility concession contracts are construed strictly in favor of the public).
\item \textsuperscript{58} See Joseph D. Kearney & Thomas W. Merrill, The Great Transformation of Regulated Industries Law, 98 COLUM. L. REV. 1323, 1335–36 (1998) (noting the shift in many instances from rates set on utilities and common carriers through the regulatory process to a contract-based regime).
\item \textsuperscript{60} FPC v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944).
\item \textsuperscript{61} See id. (“The rate-making process . . . i.e., the fixing of ‘just and reasonable’ rates, involves a balancing of the investor and the consumer interests.”).
\end{itemize}
regulated like public utilities, such as transportation or telecommunications systems, are excluded from “public utilities” for the purpose of this paper. These enterprises do not raise similar concerns of sustainability, either because they do not directly depend on exhaustible natural resources or because market forces create efficient and effective pricing mechanisms for cost-internalization and conservation incentives. Additionally, there has been far less advocacy for, and attempts to implement, a positive rights approach to these types of regulated industries as compared to water, sanitation, and energy. However, as all infrastructures depend at least indirectly on exhaustible natural resources, and as some have begun calling for a human right to the internet, this paper’s evaluation of the positive right to public utilities and its prescriptions for implementing that right may become relevant in other fields of infrastructure development and regulation.62

C. Applying Positive Rights to Public Utilities

Public utilities are important to human welfare by their very nature. A normal enterprise becomes a regulated public utility because it is “affected with the public interest.”63 It is because these enterprises are so essential to the public interest that they are often considered good candidates for the positive right status.64 Indeed, in some sense, the common law duty of public utilities to serve constitutes a positive right.65 According to this view, the theory behind this duty is that because these services are essential, and because consumers have no choice but to seek these services from the natural monopoly, the natural monopoly therefore has an affirmative duty to provide those services at a reasonable price.66 The same rationale

64.  New Right in Water, supra note 4, at 2198–00. See also Samuel R. Olken, The Decline of Legal Classicism and the Evolution of New Deal Constitutionalism, 89 NOTRE DAME L. REV. 2051, 2078 (2014) (noting that the phrase “affected with a public interest” is not a closed class and is imprecise in its meaning).
65.  R ICHARD A. EPSTEIN, MORTAL PERIL: OUR INALIENABLE RIGHT TO HEALTH CARE? 14–19 (1997) (arguing that the only positive rights that should be recognized by law are private necessity—the use of another’s property without consent in an emergency—and the duty of public utilities and common carriers to serve).
arguably supports a positive right to public utilities.⁶⁷

In an attempt to encourage equitable provision of public utility services, many have argued in favor of a positive rights approach.⁶⁸ Like the duty to serve, a positive right to public utilities would provide a bulwark against inequity.⁶⁹ Without a positive right to public utilities, some fear that a utility company’s profit motive will result in unaffordable monopolistic rates for the poor.⁷⁰ A positive right to public utilities would, in theory, at least guarantee a minimum quantity and quality of energy, drinking water, and sanitation for all.⁷¹ Also, like the duty to serve, a positive right would provide a mechanism to hold government regulators and utility companies accountable for the management of resources and infrastructure affecting the public interest.⁷²

Unlike the duty to serve, however, the positive rights approach has particular value to policy entrepreneurs looking to raise the profile of global problems like energy services, sanitation, and the inequitable distribution of adequate drinking water.⁷³ The rationale is


⁶⁸.  See, e.g., Stefan H. Krieger, An Advocacy Model for Representation of Low-Income Intervenors in State Public Utility Proceedings, 22 ARIZ. ST. L.J. 639, 698 (1990) (noting that an advocate for indigent consumers “can frame the issue as significant for the whole consuming public (utility service as a ‘basic human right’ for all consumers) rather than as a subsidy for the poor (regulation as income redistribution)”).

⁶⁹.  New Right in Water, supra note 4, at 2197; see also Barton H. Thompson, Water as a Public Commodity, 95 MARQ. L. REV. 17, 38 (2011) (discussing example of privatization of water company in Bolivia, and ensuing rate increases, leading to inequity).


⁷¹.  New Right in Water, supra note 4, at 2198; see also David R. Boyd, No Taps, No Toilets: First Nations and the Constitutional Right to Water in Canada, 57 MCGILL L.J. 81, 122 (2011) (“There are a number of reasons why it 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.”).

⁷².  Boyd, supra note 71, at 122–23 (arguing that recognizing a right to water will “provide a means of holding governments accountable”).

that primary goods such as these should have a higher priority, and thinking in terms of rights raises the profile of those primary goods. By using positive rights rhetoric in advocating for the equitable provision of public utility services, policy entrepreneurs are attempting to put first things first.

Relying on these rationales, the positive rights approach has been advocated or applied in the drinking water, sanitation, and energy sectors. Energy, sanitation and water are linked in public policy debates because each is embedded in the other. As water is required to produce virtually all goods, the costs associated with water development are embedded in all goods, a concept called “virtual water.” The same is certainly true of “virtual energy.” In particular, energy and water have virtual versions of the other embedded in their production, as water treatment and transportation is highly energy intensive, and the energy industry is one of the largest water consumers in the world. Sanitation is also extremely energy and water intensive, and thus has a high amount of both energy and water embedded in collection, treatment, and disposal. Energy, sanitation, and water services have also become interrelated as important markers of economic development. The interdependent nature of energy, sanitation and water make the

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75. *New Right in Water*, supra note 4, at 2198.


promotion of any one as a human right effectively the promotion of all three as human rights.

The positive right to water is a commonly-implemented positive right to goods and services provided by public utilities, and thus provides a useful example of how that kind of right is typically formulated. Currently, forty-one nations have recognized the right to water within their national constitutions, or have otherwise referenced the right within national legislation. For example, Article 43 of the Constitution of Kenya provides that “[e]very person has the right . . . to clean and safe water in adequate quantities.” Article 5 of Indonesia’s Law on Water Resources provides that the state guarantees individual access and availability of water for everyone residing within that nation. Article 66(2) of the Constitution of Ecuador recognizes the right to “clean water.” In each case, the right need only be progressively realized subject to available resources. Some nations, such as Uganda and Zambia, frame the right simply as a “compelling interest” or a government “objective,” subject to available resources.

In other cases, nations may not have constitutionally or statutorily recognized the right, but have inferred it from other

83. *New Right in Water*, supra note 4, at 2205.
84. *See The Rights to Water and Sanitation in National Law, RIGHTTOWATER* (Apr. 8, 2010), http://www.righttowater.info/progress-so-far/national-legislation-on-the-right-to-water (listing forty-one nations that have recognized water rights in constitutions, national laws, executive proclamations, judicial decisions, and proposed legislation).
87. *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.”).
89. *Id.*
90. *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).
express rights on the grounds that the realization of any right depends on a minimum provision of primary goods.92 For example, the Supreme Court of India inferred the right to water from other express constitutional rights.93 A similar approach can be observed in Pakistan94 and Bangladesh.95 It is not difficult to imagine how similar inferences could be made about a right to sanitation or energy.

In the United States, California is the only state to explicitly adopt a human right to water, in addition to recognizing the right to sanitation as well.96 Governor Jerry Brown signed Assembly Bill 685 into law in 2012, recognizing that “every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.”97 The law requires state agencies to consider the human right to water when “revising, adopting, or establishing policies, regulations, and grant criteria.”98

California is not the only jurisdiction to explicitly recognize a human right to sanitation. South Africa, Ecuador, and Uruguay have also recognized the right to sanitation in their respective constitutions.99 Other countries, including Costa Rica, Bangladesh,

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92. 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. ENVTL. L. & PRAC. 1, 17 (2011) (discussing how provincial governments in Canada have inferred aboriginal water rights from express constitutional guarantees to a right of subsistence on traditional lands).

93. 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.”).

94. 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, 176–77 (2011) (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).

95. 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).


97. Assembly Bill 685.

98. Id.

and Sri Lanka, have referenced a human right to sanitation in national legislation.\textsuperscript{100} South Africa has explicitly recognized the right to access to electricity.\textsuperscript{101} The formulation of these rights has proven similar to that of the right to water – vague, largely aspirational, and requiring either consideration only or progressive realization based on available resources.\textsuperscript{102} The way in which these rights are formulated, combined with the characteristics of public utilities, makes the application of a positive right to public utilities uniquely challenging.

South Africa provides a useful example for the challenges associated with a positive right to public utilities. In 1997, South Africa became one of the first nations to explicitly recognize a positive right to water in its Constitution.\textsuperscript{103} Section 27 of the South African Constitution provides that everyone “has the right to have access to . . . sufficient food and water.”\textsuperscript{104} In Phiri, a poor township of over one million residents in the city of Johannesburg, the city government attempted to comply with this right by charging a flat rate for water services to Phiri residents.\textsuperscript{105} However, because of illegal connections, unpaid water bills, overconsumption, and leaky pipes, Johannesburg generated only one percent of its water revenue from deliveries to Phiri, despite the fact that Phiri received a third of the city’s water.\textsuperscript{106} The flat rate approach thus proved financially and ecologically

\textsuperscript{100} Id. at 75.


\textsuperscript{104} S. AFR. CONST., 1996 § 27(1).


\textsuperscript{106} See Mazibuko \textit{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%”); see also COALITION AGAINST WATER PRIVATISATION ET AL., \textit{THE STRUGGLE AGAINST SILENT DISCONNECTIONS: PREPAID METERS AND THE STRUGGLE FOR LIFE IN PHIRI, SOWETO}, at 6 (2004), available at 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).
unsustainable in South Africa.\textsuperscript{107} Too few were paying for water, and even those who paid the flat rate had no incentive to conserve water once they paid.\textsuperscript{108} Without adequate revenue from water deliveries, infrastructure degraded (meaning more leaks and more nonrevenue water), water supplies diminished, and water could not be treated to a healthy level.\textsuperscript{109} Johannesburg ultimately abandoned the flat rate approach, instead seeking an alternative strategy to satisfy the positive right to water without aggravating sustainability concerns.\textsuperscript{110}

The City, pursuant to national legislation, enacted ordinances to deliver “free basic water” (6 kiloliters per household per month) with any amount above that requiring pre-payment.\textsuperscript{111} Citizens of Phiri successfully challenged the “free basic water” and pre-payment approach as a violation of their constitutional right to water at the trial and appellate court levels.\textsuperscript{112} The trial court concluded that the constitutional right required delivery of 50 liters per person per day.\textsuperscript{113} On appeal, the court ruled that the constitutional right required delivery of 42 liters per person per day.\textsuperscript{114} Ultimately, the city prevailed on appeal to the Constitutional Court of South Africa, which deferred to the City’s determination on how best to achieve sustainable resource and infrastructure management.\textsuperscript{115}


\textsuperscript{108} Tracy Humby & Maryse Grandbois, \textit{The Human Right to Water in South Africa and the Mazibuko Decisions}, 51 LIES CAHIERS DE DROIT 521, 527 (2010); Michael Kidd, \textit{South Africa: The Development of Water Law}, in \textit{THE EVOLUTION OF THE LAW AND POLITICS OF WATER} (Joseph W. Dellapenna & Joyeeta Gupta eds., 2009), 100, 100–01 (noting that conservation and sustainable management were two major challenges associated with the South African constitutional right of access to water).

\textsuperscript{109} Humby, supra note 108, at 527; see also Mazibuko at 6–7 (noting that steel pipes in Soweto were used without attention to corrosion protection, resulting in water leakages); Erik B. Bluemel, \textit{The Implications of Formulating a Human Right to Water}, 31 ECOLOGY L.Q. 957, 980 (2004) (noting the tension between South Africa’s human right approach to water and the goal of maintaining infrastructure).

\textsuperscript{110} See Mazibuko at 7 (describing Johannesburg Water’s plan to change water usage in Soweto).

\textsuperscript{111} Humby, supra note 108, at 530; see also Mazibuko at 6–7.

\textsuperscript{112} Mazibuko at 12–18. Importantly, other more affluent white neighborhoods in Johannesburg were not required to use prepaid meters, and this was successfully challenged at the time on grounds of racial discrimination. Additionally, the free provision of 6 kl per household was intended to provide 25 liters per person per day, but the city failed to account for the number of people within each household in Phiri.

\textsuperscript{113} \textit{Id.} at 14.

\textsuperscript{114} \textit{Id.} at 18.

\textsuperscript{115} \textit{Id.} at 28–34 (reviewing for reasonableness because “courts are ill-placed to make these assessments for both institutional and democratic reasons”).
The challenges South Africa faced in implementing a constitutional right to water in Phiri illustrate the difficulties likely facing any government implementing a positive right to a public utility. Indeed, South Africa’s struggles to implement such a positive right are not atypical. In India, for instance, the Supreme Court inferred a positive right to water from the constitutional right to life under Article 21 of the Indian Constitution. 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.” Despite this positive right, as of 2004, 17% of the population in India did not have access to tapped, treated water, including 38% percent of urban residents. Eighty percent of children in India suffer from water-borne diseases, with a total of 44 million suffering from illnesses related to poor water quality. India’s recognition of the provisional right to water illustrates the larger reality—adopting a positive right to public utilities does not necessarily improve access to water, sanitation, and energy. The mere recognition of a right in a judicial opinion or constitution is meaningless without effective regulation and institutional competency.

II. WHY POSITIVE RIGHTS TO PUBLIC UTILITIES REQUIRE ADAPTATION

The positive right to public utilities is typically formulated in a way that leaves fundamental questions of price, quality, access, and sustainability unanswered. The South African Constitution provides “the right to have access to . . . sufficient food and water,” but does not explain what would qualify as sufficient. In India, there is “a

116. INDIA CONST. art. 21 (providing due process protection for life and liberty).
119. Id.
120. See David Zetland, Water Rights and Human Rights: The Poor Will Not Need Our Charity if We Need Their Water, SOC. SCI. RES. NETWORK, Aug. 11, 2011, at 5–7, available at http://ssrn.com/abstract=1549570 (relying on data for improved water access before and after enactment of a constitutional right to water in 12 countries compared to 12 similar countries lacking a constitutional right to water, an empirical analysis demonstrated no impact on improved water access arising from enactment of a constitutional right to water).
121. New Right in Water, supra note 4, at 2184.
duty on the state . . . to provide clean drinking water to its citizens,” but the precise requirements of that duty are left to courts and agencies to determine with little guidance. And while the right to water provides the most common example of attempts to implement a positive right to public utilities, similar ambiguity exists in providing the right to energy and sanitation as well. This ambiguity often leaves courts, which typically lack the necessary expertise, to either make difficult decisions on resource sustainability and rate-setting, or else to defer to executive agencies or the legislature; thereby, weakening the role of the courts as mere arbiters of constitutionally guaranteed rights.

The characteristics of public utilities do not lend themselves to the straightforward application of a vaguely worded, aspirational positive right. Public utilities are capital intensive. Public utilities also uniquely and directly depend on exhaustible natural resources, and provide processed or treated versions of natural resources as their primary service. Additionally, unlike other candidates for positive rights, distribution of resources by public utilities inherently involves natural monopolies. Thus, the characteristics of public utilities are distinguishable from other positive rights in that there is often no competition to regulate prices, resulting in underpricing and little consumer incentive to conserve natural resources.

This Part provides three reasons why positive rights to public utilities require adaptive implementation: (A) tribunals adjudicating positive rights claims typically lack the necessary institutional competency to effectively decide cases involving complex issues of resource sustainability and rate-setting, particularly where the right is formulated in vague and aspirational terms; (B) the potential cost

124. Cross, supra note 3, at 901 (noting that positive rights tend to be vague and indeterminate); Murthy, supra note 44, at 95 (noting that the human right to sanitation involves questions of equity, affordability, and sustainability).
125. See, e.g., William N. Eskridge, Vetogates, Chevron, Preemption, 83 Notre Dame L. Rev. 1441, 1480 (2008) (noting that courts have little competence in evaluating policy arguments in technical fields like public utilities); Cross, supra note 3, 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 [positive] rights”).
127. See, e.g., King, et al., supra note 81, at 145 (describing the resource use required for wastewater treatment).
reduction impact of a positive right to water can make the right economically and ecologically unsustainable because providers fail to recover costs of service and consumers fail to internalize the cost of consumption; and (C) the positive right to water can eliminate incentives for public engagement and oversight, and tend to facilitate rent-seeking by utility companies and corruption by utility regulators.

A. Positive Rights to Public Utilities and Enforceability

As seen in the example of India above, and as borne out in empirical comparisons between countries recognizing a positive right to public utility services and those that do not, actual provision of an adequate public utility service does not necessarily follow from the legal recognition of a positive right.\textsuperscript{129} One of the most common reasons positive rights in any policy arena fail is due to the lack of effective enforcement.\textsuperscript{130} As the arbiter of rights, the judiciary may lack necessary institutional competency, as compared to other governmental entities, to effectively establish minimum quantities and qualities, and maximum and minimum prices, for services provided by public utilities.\textsuperscript{131} In short, a positive right to public utilities implicates the “familiar difficulties with judicial enforcement of affirmative duties.”\textsuperscript{132}

Furthermore, the nature of the judiciary also limits the enforceability of a positive right to public utilities because courts generally lack the necessary expertise to flesh out the precise duties prescribed by the right. The Constitutional Court in \textit{Mazibuko} ultimately deferred to the City’s established minimum amount and pre-payment requirement based on what the Court called “an understanding of the proper role of courts in our constitutional democracy.”\textsuperscript{133} 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 development of the right.”\textsuperscript{133}

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\textsuperscript{129} See generally Zetland, supra note 120.
\textsuperscript{130} See generally LAURENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW 1336 (2d ed. 1988) (stating that affirmative obligations placed upon governments to provide basic sustenance to their citizens would be subject to difficulties with judicial enforcement).
\textsuperscript{131} 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).
\textsuperscript{132} TRIBE, supra note 130, at 1336.
\textsuperscript{133} Mazibuko v. City of Johannesburg 2010 (4) SA 1 (CC) at 28 (S. Afr.).
\end{flushright}
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.\textsuperscript{134}

Answering the fundamental questions underlying a positive right to public utilities is particularly complicated because the answer cannot simply be about the minimum quantity and quality for survival – everyone alive already has that minimum amount.\textsuperscript{135} Instead, the answer depends on the highly technical determination of a minimum amount and quality for survival at a maximum price, and also about the nuanced issue of achieving a certain standard of living, which involves even more complex matters of culture, economics, sustainability, equity, and geography.\textsuperscript{136}

Executive agencies and legislatures have taken two different approaches to the formulation and implementation of positive rights to public utilities, each problematic.\textsuperscript{137} The first is to establish a broad, guiding principle in the formulation of the right (for example, a simple guarantee of “sufficient water”), allowing courts to enforce the principle on a case-by-case basis.\textsuperscript{138} However, such ambiguity raises serious enforcement challenges.\textsuperscript{139} Where courts lack information and expertise regarding state budgets and revenue, the enforcement of a positive right can create serious fiscal problems.\textsuperscript{140} Where courts lack information and expertise regarding local conditions, including population density, consumption patterns, hydrology, climate, and ecology, judicial enforcement of positive rights may prove inadequate.

\footnotesize{\textsuperscript{134} Id. at 30 para. 61.  
\textsuperscript{135} Reconciling Energy, supra note 5, at 958 (“A central question at the heart of food, water, and energy security is: ‘How much?’ With water, the answer cannot be ‘enough to stay alive.’ There are only two kinds of people on earth – people with enough water to stay alive and dead people.”).  
\textsuperscript{136} See id. (“The real question . . . is: ‘How much to achieve what standard of living?’”).  
\textsuperscript{137} New Right in Water, supra note 4, at 2216.  
\textsuperscript{138} Id.  
\textsuperscript{139} See Cross, supra note 3, 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.”).  
\textsuperscript{140} 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).}
or overreaching.\textsuperscript{141}

To avoid these problems, executive agencies and legislatures may take a second approach by quantifying the minimum quantity and quality of public utilities services required to meet a positive right.\textsuperscript{142} This effectively helps to relieve ill-equipped courts from the burden of adjudicating complex ecologic and economic questions.\textsuperscript{143} However, such rigid minimum standards may prove unworkable as conditions differ both temporally and spatially from case to case. For example, changes in climate and population can quickly make a minimum standard obsolete.\textsuperscript{144} To the extent that courts meaningfully evaluate these minimum standards, they are left to make \textit{ad hoc} determinations of the viability of these minimum standards under different localized conditions.\textsuperscript{145} As with fleshing out vague and indeterminate guarantees of “sufficient” water, courts are often forced to make technical determinations for which they are ill-suited, even when a minimum standard is established.\textsuperscript{146} The courts are then faced with the familiar challenge of determining the degree to which they should defer to standards established by executive agencies in implementing the legal right in question.\textsuperscript{147}

The judicial application of what is termed the “\textit{Ben Avon} doctrine” in the United States illustrates the challenges associated with judicial review of agency actions in the realm of public utilities.\textsuperscript{148}

\begin{itemize}
\item[141.] See Cross, supra note 3, 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”).
\item[142.] See, e.g., \textit{New Right in Water}, supra note 4, at 2217 (describing Johannesburg’s standard of six kiloliters per month per household).
\item[143.] \textit{Id.}
\item[145.] \textit{Mazibuko v. City of Johannesburg} 2010 (4) SA 1 (CC) at 83–85 (S. Afr.) (noting that the South African Constitutional Court has previously expressed the difficulties associated with deciding cases that have broad social and economic consequences); Cross, \textit{supra} note 3, at 903–05 (illustrating the complexities associated with judicial enforcement of positive rights such as “a minimal level of subsistence”).
\item[146.] See Christine A. Klein & Ling-Yee Huang, \textit{Cultural Norms as a Source of Law: The Example of Bottled Water}, 30 CARDOZO L. REV. 507, 534 (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”).
\item[147.] See \textit{id.}, at 535 (recounting an example where the Texas Supreme Court deferred).
\item[148.] Reuel E. Schiller, \textit{The Era of Deference: Courts, Expertise, and the Emergency of New Deal Administrative Law}, 106 MICH. L. REV. 399, 430–31 (2007); see generally Ohio Valley
Where a government agency sets a public utility’s rate so low that it effectively requires the company to use its property for the public benefit without just compensation, the rate is confiscatory and constitutes an unlawful exercise of eminent domain power. In Ben Avon, the U.S. Supreme Court held that courts review agency ratemaking decisions de novo where the utility company claims that the rate is confiscatory, because the question is one of a fundamental constitutional right. The rationale behind the Ben Avon doctrine is that, courts should give greater scrutiny to agency determinations in questions of infringement of fundamental constitutional rights. More recently, courts have moved away from the Ben Avon doctrine and have instead been highly deferential to agency ratemaking determinations for public utilities. The rationale behind this move is that value of the judicial protection against agency overreach in ratemaking is outweighed by the court’s relative lack of expertise and the costs of uncertainty associated with litigating rates de novo.

This new, more deferential approach to ratemaking cases is instructive for implementing a positive right to public utilities. When courts cannot effectively review cases involving violations of positive rights because they lack institutional competence, the positive right is too weak to further interests in equity and sustainability.

B. Positive Rights to Public Utilities and Sustainability

Under ordinary formulations, the object of a positive right to public utilities is to provide equitable access to water, energy, and sanitation without jeopardizing the ability of future generations to


152. Fed. Power Comm’n v. Hope Natural Gas Co., 320 U.S. 591 (1944) (in which the Supreme Court did not review constitutional facts de novo in a confiscatory ratemaking case, instead deferring to the agencies’ ratemaking methods so long as the rate itself is reasonable.); see also Glick, supra note 150, at 307–08 (discussing the split among courts over the continued viability of the Ben Avon doctrine).

153. Glick, supra note 150, at 306; see also Schiller, supra note 152, at 431.

154. New Right in Water, supra note 4, at 2191.
enjoy that same access.\textsuperscript{155} In other words, positive rights to public utilities aim to achieve both intra-generational equity (the ability of the poor to afford sufficient access to adequate public utilities services) and inter-generational equity (the ability of future generations to enjoy services on those same terms).\textsuperscript{156} In practice, however, applying positive rights to public utilities may actually frustrate efforts to achieve intra-generational and inter-generational equity in the provision of water, sanitation, and energy.

Capital-intensive natural monopolies require a return on investment to attract capital and expertise, but also to promote maintenance and upgrades for degrading or obsolete infrastructure.\textsuperscript{157} However, a positive rights approach to public utilities often results in large general subsidies to these utilities and underpriced service because the right is interpreted or implemented as requiring low or no cost provision of at least some amount of utilities service to all.\textsuperscript{158} When regulators set low rates to meet a positive right guarantee of public utilities, the lack of full cost recovery precludes effective maintenance and reinvestment in infrastructure.\textsuperscript{159} In effect, positive rights to public utilities tend to be economically unsustainable.

Positive rights to public utilities are often formulated in a way that either ignores, or is hostile to the idea that water and energy are valuable commodities requiring expensive infrastructure to fully develop.\textsuperscript{160} For example, some have argued that full cost recovery is


\textsuperscript{158} \textit{Reconciling Energy}, supra note 5, at 940–41; see also MIchael J. Rouse, \textit{institutional Governance and Regulation of Water Services: The Essential Elements} 38, 40–47 (2013) (outlining the planning, financing and cost recovery considerations inherent in the provision of water services). Of course, water is often underpriced and policies fail to achieve full cost recovery in many instances even without a recognized positive right to water. \textit{See}, e.g., Barton H. Thompson, Jr., \textit{Institutional Perspectives on Water Policy and Markets}, 81 CAL. L. REV. 671, 674 (1993).


... inconsistent with the idea of positive rights. They argue that “[i]nstead of commodifying [public utilities] even further, we need to recover [utilities] by treating [them] as part of the commons and by strengthening community participation in [utilities] management.”

Such a formulation of the positive right to public utilities is counterproductive for three major reasons. First, many countries are reluctant to recognize any positive right to public utilities because they are concerned that a “[positive right] may mean free provision . . . which they simply cannot afford” without recovering costs from consumers. As such, formulations of a positive right hostile to cost recovery often discourage states from applying a rights framework to their public utilities because they are understandably reluctant to assume obligations they are unable to meet.

Second, where a positive right to public utilities requires provision of water, energy, and sanitation at low or no cost, lack of cost recovery results in degraded infrastructure and, ultimately, inadequate delivery. There is a relationship between the “economic sustainability” of public utility services and the “recovery of costs through . . . [consumer] tariffs that are equitably assigned based on

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.

161. See Bluemel, supra note 118, 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”).

162. MAUDE BARLOW & TONY CLARKE, BLUE GOLD: THE FIGHT TO STOP THE CORPORATE THEFT OF THE WORLD’S WATER 210 (2002); see also VANDANA SHIVA, WATER WARS: PRIVATIZATION, POLLUTION AND PROFIT ix–x (2002) (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”).

163. See 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 their responsibilities and accountabilities are clarified, as well as those of the consumers”).

164. See McCaffrey & Neville, supra note 105, at 685 (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”).

165. 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)).
ability-to-pay." The challenges faced by both India and South Africa illustrate how a positive rights approach to public utilities may lead to a failure to fully recover costs, ultimately undermining the rationales behind a positive right as the degraded system fails to deliver what the right promises.

Third, where the positive right to public utilities precludes or discourages cost recovery, it also discourages much needed investment in public utilities infrastructure. Billions of dollars are needed in the coming years to secure and maintain adequate global water and sanitation infrastructure, with the regions most in need being least able to absorb those costs. 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. The same level of investment in energy infrastructure is needed, particularly in light of the need for climate change adaptation and mitigation aimed at decreasing greenhouse gas emissions. It is simply not possible to meaningfully implement a positive right to public utilities without dramatic increases in capital expenditures in utility infrastructure. Such dramatic increases will

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168. 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.” 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 105, at 685.
169. See Salzman, supra note 165, 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)).
not come unless there is support for effective full cost recovery in the public utility sector.173

Where a positive right is framed as access to resources or services “free of economic encumbrances,”174 such a right is counterproductive to the development, provision, and expansion of affordable public utilities.175 Again, the debate surrounding the human right to water is illustrative of the problem for all public utilities. The recent World Water Commission strongly advocated 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.”176 The concern, of course, is what impact full cost pricing of water will have on the poor in developing countries.177

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.178 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

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173. See id., at 239–40 (arguing that African countries “will need to implement cost recovery policies” in attempting to reach the MDGs); CAMDESSUS REPORT, supra note 170, at 13 (“Sustainable financing for water systems will require greatly improved cost recovery from their users and increased management efficiency.”). Water infrastructure is uniquely capital intensive. 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.


175. See New Right in Water, supra note 4, at 2225 (referring to the counterproductivity to the development and expansion of affordable clean water supplies).

176. 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”).

177. 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 of foreign corporations would subject the “poor . . . to high prices and service cut-offs” (citation omitted)).

178. ROUSE, supra note 158217, 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.”).
and treated water can reduce the poor’s expenditures on water.\textsuperscript{179} However, such expansion requires significant investment in infrastructure. When infrastructure goes unfunded because of a failure to recover costs, delivery becomes inconsistent, quality decreases, and the ones who suffer most are the poor.\textsuperscript{180} Where a positive right to public utilities is framed in such a way as to interfere with full cost recovery, the right is counterproductive to its presumed end of protecting the economically disadvantaged.\textsuperscript{181}

Guaranteeing affordability through a positive right can interfere with essential full cost recovery, resulting in a regressive policy that ultimately harms the poor and frustrates efforts to achieve inter-generational equity.\textsuperscript{182} When the positive right to public utilities eliminates incentives to conserve, it not only harms the poor in the present, but future generations as well.\textsuperscript{183} Low rates and large subsidies prevent consumers from internalizing the costs of their consumption of resources provided through public utilities, leading to waste and unsustainable use.\textsuperscript{184} Appropriate utility service pricing, on the other hand, encourages sustainable use.\textsuperscript{185} Thus, reasonable water pricing is essential to water sustainability.\textsuperscript{186} Free or heavily subsidized water services lead to waste of water resources with implications for inter-generational equity and the environment because water is withdrawn faster than it is naturally restored.\textsuperscript{187}

\textsuperscript{179} New Right in Water, supra note 4, at 2226.
\textsuperscript{180} 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.”).
\textsuperscript{181} Id. at 2226, supra note 4.
\textsuperscript{182} Id. at 2231.
\textsuperscript{183} Id. at 2231–33; see generally Daniel A. Farber, From Here to Eternity: Environmental Law and Future Generations, 2003 U. ILL. L. REV. 289 (2003).
\textsuperscript{184} ROUSE, supra note 158, at 40–43.
\textsuperscript{185} See CAMDESSUS REPORT, supra note 170, at 18 (arguing that “full cost recovery from users is the ideal long-term aim”); Priceless, THE ECONOMIST (July 17, 2003), http://www.economist.com/node/1906846 (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).
\textsuperscript{187} See NORMAN MYERS & JENNIFER KENT, PERVERSE SUBSIDIES: HOW TAX DOLLARS CAN UNDERCUT THE ENVIRONMENT AND THE ECONOMY, (2001), 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 159, at 1883 (encouraging a reform of the present system by eliminating
There is a growing awareness that large general subsidies produce waste that is not ecologically sustainable, particularly in resource-scarce regions, and that general subsidies in energy and water are harmful in the long run to the environment. General subsidies have been particularly linked to severe environmental damage in developing countries. Low cost or free water, promoted under the auspices of a positive right, thus has led to the depletion of water supplies for people and the environment, as well as an overall degradation of water quality.

The same problem of waste from large subsidies arises in the energy sector. If the positive right to public utilities results in large subsidies to the energy sector, then energy consumers will have little incentive to conserve energy, thus aggravating greenhouse gas emissions and the sustainability issues surrounding global climate change. The basis for many of the policy proposals that seek to mitigate climate change – such as carbon taxes or cap-and-trade schemes – is cost internalization to promote conservation and renewable energy. And where these approaches fail, a more


189 See David L. Feldman & Helen Ingram, Multiple Ways of Knowing Water Resources: Enhancing the Status of Water Ethics, 7 SANTA CLARA J. INT’L L. 1, 7 (2009) (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.”

190 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. et al., 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).


192 See, e.g., Eric A. Posner & Cass R. Sunstein, Should Greenhouse Gas Permits Be Allocated on a Per Capita Basis?, 97 CAL. L. REV. 51, 76 (2009) (“[A]ny tax or cap-and-trade system that requires firm or individuals to internalize the social cost of their greenhouse gas emissions is efficient, in the sense that under these schemes firms and individuals will use energy only when the social benefits (including their own profits or consumption) are greater than the social costs (including the costs to the climate).”).

193 See, e.g., Joshua Meltzer, A Carbon Tax as a Driver of Green Technology Innovation and the Implications for International Trade, 35 ENERGY L.J. 45, 52 (2014) (arguing that these
localized approach where regulators set utility rates to encourage conservation could be an alternative path to mitigating climate change.\textsuperscript{194}

Thus, to the extent that a positive right to energy produces energy subsidies that preclude cost internalization and conservation incentives, the positive right to energy could aggravate the sustainability challenges associated with global climate change. In short, where the positive right to public utilities fails to recover costs of service, it is economically unsustainable and intra-generationally inequitable. When the positive right is implemented so that consumers do not internalize the cost of consumption, the right is likewise ecologically unsustainable and inter-generationally inequitable. The anthropocentric focus on low- or no-cost public utilities services therefore raises serious concerns as to the sustainability of a positive right to public utilities.\textsuperscript{195}

\textbf{C. Positive Rights to Public Utilities and Transparency}

The possible inequities arising from the positive right to public utilities are not limited just to concerns of cost recovery and cost internalization. The way in which public utilities are managed and regulated as natural monopolies often impedes effective implementation of a positive right. Regulators who set rates and grant concessions to utility companies may be politically motivated to set low rates to satisfy the demands of their constituency for low cost water and energy, with the positive right serving as the legal excuse for setting low rates.\textsuperscript{196} As such, a positive right may result in undervaluing public utility services in the name of political expediency.\textsuperscript{197} Once constituents are satisfied with free or low-cost utility services provided in the name of a positive right, there is little

\begin{footnotesize}
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  \item[195.] See Leonard Hammer, \textit{Indigenous Peoples as a Catalyst for Applying the Human Right to Water}, 10 INT’L J. MINORITY & GRP RTS. 131, 134 (2003) (arguing that 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.”).
\end{itemize}
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incentive for the public to provide any oversight of utility companies. Therefore, a need arises for transparency.

In fact, public oversight of utility companies is critical. Utility companies frequently secure grants of a natural monopoly through concession contracts between the company and the state. These contracts set forth the scope of the natural monopoly – how long the company will hold the monopoly and over what geographic areas – as well as the mechanisms for financing, cost recovery, and government oversight. Both utility companies and regulators are likely to be motivated by self-interest, and may therefore engage in corrupt concession contracting processes. In those instances, a positive right to public utilities could serve as the legal excuse for rent-seeking regulators and public utilities companies to secure long-term concessions and guaranteed public subsidization. Corruption in the concession contracting process thus has the potential to undermine positive rights to public utilities because it can guarantee large subsidies to private utility companies while the public remains rationally disengaged from the concession contract due to the affordable services that the positive right ensures. As long as the public is not fully internalizing the cost of its utility consumption, it is unlikely to demand transparency and accountability in the concession contracting process.

Such a lack of transparency and accountability in concession contracting can have enormously detrimental impacts on the public.

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198. See Vandenbergh, supra note 194, at 1533–34 (observing that consumers’ short-term interests are satisfied as long as utilities are low-priced).
203. New Right in Water, supra note 4, at 2189.
204. See, e.g., Wilford A. Payne, III, The Regulatory Pitfalls of Distributive Generation: No Standardization in Access or Standby Rate Structures, 2 Fla. St. U. Bus. Rev. 61, 65 (2001) (noting how some energy utility companies have used regulations to prohibit distributed power facilities).
205. See, e.g., Emmanuelle Auriol & Aymeric Blanc, Capture and Corruption in Public
For example, corrupt officials may grant a public utility concession without any competitive bidding process, effectively eliminating one of the few instances where competition can drive down costs and improve a natural monopoly’s efficiency and performance.\textsuperscript{206} Corrupt officials can further eliminate the role of competition by prohibiting any alternative means of distributing water, sanitation, or energy services.\textsuperscript{207} For instance, the state can force more customers to the private utility company by outlawing or increasing the cost of distributed energy sources, such as solar or wind, distributed water sources, like wells and rainwater harvesting, or distributed sanitation, such as latrines.

The Bolivian Water War of 2000 illustrates the challenges associated with concession contracts and the positive right to public utilities. The City of Cochabamba in Bolivia was suffering from severe water supply, quality, and infrastructure problems at the time.\textsuperscript{208} Only a small percentage of the City was connected to the water system, with many forced to find alternative water supplies at high cost or high risk.\textsuperscript{209} To secure necessary loans to improve water services, the City, at the encouragement of the World Bank, privatized its water supply and infrastructure.\textsuperscript{210} The concession contract was awarded to a consortium led by Bechtel, called Aguas Del Tunari (ADT), without any competitive bid or public stakeholder involvement, and guaranteed 16\% return on investment to ADT for 40 years.\textsuperscript{211} The guaranteed rate of return resulted in a rate increase of 35\%, with some water bills rising as much as 200\%.\textsuperscript{212} In part to guarantee sufficient customers, and in part to encourage connection

\begin{footnotes}
\footnote{Utilities: The Cases of Water and Electricity in Sub-Saharan Africa, 17 UTIL. POL’Y 203 (2009) (tracing the issue of high-priced, privatized service utilities to local corruption).}
\footnote{OSCAR OLIVERA & TOM LEWIS, ¡COCHABAMBA! WATER WAR IN BOLIVIA 5 (2004).}
\footnote{See id. at 9.}
\footnote{See id. at 7–8 (explaining the city’s historical problems with water and water supply).}
\footnote{See id. at 8–9 (explaining the way Cochabamba’s residents received water at the time the government privatized the water utility).}
\footnote{Id.}
\end{footnotes}
to a clean drinking water system, alternative (and in some cases, traditional) methods of gathering water were prohibited, including rainwater harvesting.213

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.214 Protestors claimed that the concession to ADT, and the related rate increases and associated prohibition on alternative water provision, violated a fundamental human right to water.215 After a prolonged and violent standoff, the protestors and the government reached an accord which nullified the concession contract, repealed prohibitions on alternative water provision, and turned over ownership and operation of the city’s water services to the municipal government.216 Yet despite these reforms, water quality and services in Cochabamba today remain problematic, with more than half of the city’s population unconnected to services.217

The Cochabamba example demonstrates an ineffective approach to providing water. A potential solution to problems illustrated in Cochabamba could involve a state government guarantee of water and energy to its citizens at a certain price. That positive right would then provide the legal requirement for large general subsidies directed at private utility companies building and operating the

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213. OLIVERA, supra note 206, at 8.
214. See id. at 33–49 (detailing the standoff and conflict that eventually lead to water management in Cochabamba being entrusted to the municipal government).
217. 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 (“[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.”); ROUSE, supra note 158, at 141–42 (2007) (detailing the state of Cochabamba’s water supply after the failed attempt at privatization).
infrastructure. In the name of securing positive rights to public utilities, alternative approaches to water, sanitation, or energy provision could be prohibited. Corrupt officials could further eliminate competition by avoiding a competitive bidding process for the concession. The public choice theory explanation for this approach is that utility companies will encourage positive rights as a means of limiting competition while also guaranteeing large general subsidies. Citizens would be unlikely to oppose those general subsidies, even if corrupt and unsustainable, both because they are receiving free or underpriced utilities services, and also because collective action problems and rational ignorance effectively preclude public opposition.

Even where there is no corruption or rent-seeking in the concession contracting process, the politics of public utility regulation under a positive rights regime remains problematic. The public is less likely to engage with the development of water policy when it is not impacted by water rates, making water policy development less transparent and less participatory. This situation – where consumers fail to provide adequate oversight of the provision of goods and services because they are receiving those goods and services at low cost – is analogous to health insurance and health care in that health care consumers often fail to stay informed regarding costs and effectiveness of treatment because the majority of the actual cost is borne by the insurance company. This rational indifference or rational ignorance limits transparency because consumers do not seek information on efficiency and effectiveness when the cost of obtaining


221. See Vandenberg, supra note 201, at 1531–34 (observing that consumers’ short-term interests are satisfied as long as utilities are low-priced, even if the long-term costs of inefficiency are ultimately greater).

the information exceeds the cost of obtaining an acceptable level of effectiveness.\textsuperscript{223} Similarly, water and energy consumers receiving no or low-cost services will not invest time in providing necessary public oversight of, and stakeholder participation in, public utility regulation.

The example of Bolivia illustrates that it is not essential to enact a positive right to public utilities in order for public corruption to infiltrate concession contracting. Even so, a positive right can provide the legal foundation for such corruption, and can limit the stakeholder engagement necessary for appropriate oversight of an otherwise monopolistic regime. This is true particularly when the sustainability of scarce and essential resources is at stake. Thus, the absence of a positive right to public utilities is preferable to unenforceable and inequitable rights which facilitate public corruption. While the aims of positive rights to public utilities may be laudable, ultimately, positive rights must be evaluated for their pragmatic utility.\textsuperscript{224} Without a pragmatic orientation, positive 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.”\textsuperscript{225} If enforceability, sustainability, and equity are the aims of the positive rights approach to public utilities, then such rights must be framed and implemented with those aims in mind.

III. HOW TO ADAPT POSITIVE RIGHTS TO PUBLIC UTILITIES

The characteristics of public utilities make implementation of a positive right difficult, but not impossible. In order to effectively implement a positive right, such a right must be tailored to the public utility, while keeping in mind the aims of enforceability, transparency, and sustainability. This Part proposes three ways to adapt the implementation of a positive right to the unique characteristics of public utilities: (A) creation of specialized tribunals; (B) a tariff

\begin{itemize}
\item \textsuperscript{223} Id.; see also Steven P. Croley & Jon D. Hanson, \textit{Rescuing the Revolution: The Revived Case for Enterprise Liability}, 91 MICH. L. REV. 683, 771 (1993) (“Rational consumers will invest only up to the point at which the marginal cost of additional information equal the marginal benefits.”).
\item \textsuperscript{224} See Cross, \textit{supra} note 3, at 878–80 (explaining why the rejection of pragmatism in the evaluation of positive rights is flawed).
\item \textsuperscript{225} 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).
\end{itemize}
structure where the largest consumers pay the highest rates; and (C) a transparent and participatory public concession contracting process.

A. Specialized Tribunals for Public Utilities Cases

Despite the flaws inherent in the current approach, a workable version of a positive right to public utilities could prove pivotal in successfully achieving equitable global access to water, sanitation, and energy. However, one of the main obstacles to an enforceable positive right to public utilities is the relative lack of expertise of most courts in rate-setting, ecology, infrastructure finance, and public health relating to public utilities. To address this shortfall in institutional competence, states seeking to implement a positive right to public utilities should institute specialized tribunals with relevant expertise in public utilities to adjudicate these positive rights.

A specialized court is one with jurisdiction, typically exclusive, in a single legal field. The advantage of this approach is that the specialization of the court affords it the institutional competence to adjudicate within a field that is highly technical and requires a high degree of expertise. This approach has been taken in the fields of bankruptcy, tax, corporate law, and patents. More than simply providing an informed adjudicator in a complicated dispute, the institutional competency of specialized courts also protects the rights of the parties from arbitrary action by the executive.

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228. Id. at 69; see also Rochelle C. Dreyfuss, The Federal Circuit: A Case Study in Specialized Courts, 64 N.Y.U. L. REV. 1, 4 (1989).


reviewing executive action lacks field-specific competence relative to the executive agency it reviews, it typically defers to that agency’s expertise, as was seen in the South African Constitutional Court’s deference to the City in Mazibuko. But where the reviewing court has sufficient expertise to effectively review the actions of the executive de novo, and particularly where those actions affect fundamental constitutional rights, the court is more likely to provide an effective bulwark against executive overreach.

The use of specialized tribunals in deciding cases involving natural resources is not without precedent. The U.S. Supreme Court often relies on special masters in cases involving inter-state water disputes precisely because of their institutional competence. Special masters play important roles in large general stream adjudications because of the high level of complexity, typically involving thousands of parties and technical evaluations of hydrologic models. Similarly, the State of Colorado relies on special water courts to adjudicate water disputes, recognizing that expertise is necessary to effectively adjudicate disputes involving water rights priority, water efficiency, and the reasonableness of water uses. Evaluations of Colorado’s system have commended it for its fairness, adaptability, and

plays in checking the power of the executive).

232. Mazibuko v. City of Johannesburg 2010 (4) SA 1 (CC) at 6–7 paras.11–12, 179 (S. Afr.); see also Chevron, U.S.A., Inc. v. NRDC, 467 U.S. 837 (1984) (holding that where Congress has not spoken unambiguously in a statute, courts should defer to agency interpretations of statutes implemented by that agency unless the interpretation is unreasonable).

233. See, e.g., Johnson v. California, 543 U.S. 499, 505–15 (2005) (holding that strict scrutiny, rather than deference, was appropriate in reviewing claims involving Constitutional rights); see also Eric Berger, Individual Rights, Judicial Deference, and Administrative Law Norms in Constitutional Decision Making, 91 B.U. L. REV. 2029, 2032 (2011) (arguing that judicial deference to executive agencies in cases involving individual constitutional rights is “inconsistent and inchoate” in part because the relative expertise of the courts vis a vis the agency in such cases allows for a more searching review).


particularly for the high levels of expertise held by the judges.\textsuperscript{237} This success has led to calls for a similar approach in the adjudication of other disputes involving natural resources.\textsuperscript{238}

The challenge of implementing this reform can be the higher cost of such specialized courts.\textsuperscript{239} However, procedural reforms can reduce costs to provide for efficient adjudication.\textsuperscript{240} Such reforms include disclosures that must be held in a publicly accessible database, limits on the participation of third parties not directly involved in the dispute, and cost-sharing and fee structures directed at lowering the cost of expert engineers and economists as witnesses and consultants.\textsuperscript{241} The higher cost potential of specialized courts has not precluded implementation of this approach in tax, bankruptcy, and intellectual property,\textsuperscript{242} and it should not prove any greater an obstacle in the equally important realm of public utility regulation.

These specialized tribunals should review agency decisions impacting the positive right to public utilities \textit{de novo}, with authority to award damages and issue equitable and declaratory relief. Critically, a positive right to public utilities should incorporate stakeholder rights to participate in the formulation of water, sanitation, and energy policies that are similarly enforceable by specialized tribunals.\textsuperscript{243} The courts should be independent of the executive, and provide oversight of agency adjudication of utility disputes. By establishing specialized courts, the positive right to public utilities will cease to be a mere aspirational statement for executive agencies avoiding effective judicial review through their relative institutional competence; instead, it will be a right that can be

\textsuperscript{237} \textit{Id}. at 547–49.


\textsuperscript{239} David M. Getches, foreword to P. ANDREW JONES & TOM CECH, COLORADO WATER LAW FOR NON-LAWYERS x (Univ. Press of Colo. 2009) (finding the costs associated with specialized water courts in Colorado “troubling.”).


\textsuperscript{241} \textit{Id}.


\textsuperscript{243} \textit{New Right in Water}, supra note 4 (arguing for participation rights in water guaranteeing access to stakeholder processes relating to rate-setting, access, quality, and financing).
enforced by judges capable of balancing economic, financial, ecologic, and public health interests.

B. Block Tariffs and Direct Subsidies in Public Utilities

A specialized tribunal is an important step in transitioning a positive right in public utilities from aspirational to functional in that it avoids the obstacle of institutional competence that has often precluded effective judicial enforcement of positive rights. It does not, however, address the issues of intra-generational equity and sustainability. The implementation of a positive right to public utilities must not only result in affordable water, sanitation, and electricity services to the poor in the present, it must also recover costs to maintain and upgrade infrastructure and encourage conservation of resources. To balance these potentially competing aims, the implementation of the positive right to public utilities must be coupled with tariff reform.

The first reform that must be adopted are block tariffs – utility rates that increase as consumption increases. Block tariffs can be effective in ensuring access to a minimum amount of water at an affordable price, while still achieving full cost recovery. The largest consumers of water, energy, and sanitation would bear the greatest burden of ensuring cost recovery, and have a correspondingly greater incentive for conservation. At the other end, indigent consumers who require only enough public utility service to meet a minimum standard of living would pay the lowest rate.

This approach alone, however, still leaves open the question of whether that low initial block rate would be affordable to all, and whether everyone would still have incentives to conserve resources by internalizing the cost of consumption. Without additional reforms, the block tariff approach leaves unanswered questions of how much water and energy domestic users will receive in the initial, low-priced block. The block tariff approach should therefore be coupled with

244. **Reconciling Energy**, supra note 5, at 951; see also **ROUSE, supra note 158**, at 45–47.
247. *Id.; see also Reconciling Energy, supra note 5*, at 950–51.
direct public utility subsidies to indigent consumers based on their ability to pay.\textsuperscript{249} This is the approach Chile has taken with water provision, and it can be adapted for public utility services in general.\textsuperscript{250} In 1998, Chile enacted a new Tariff Law to encourage full cost recovery and equitable pricing.\textsuperscript{251} Central to the new Tariff Law was a direct subsidy to poor households.\textsuperscript{252} These households would go to their local government, which would make an ability-to-pay determination.\textsuperscript{253} The household would be required to pay what it could afford based on the amount of its consumption (thereby internalizing at least some of the cost of consumption and having an incentive to conserve).\textsuperscript{254} The local government would then provide a direct subsidy in the form of a “water stamp” to cover the rest of the cost of water provision.\textsuperscript{255}

Block tariffs alone can disproportionately burden poor households because water vendors may buy water in bulk from the public utility at the higher rate, and then pass the cost on to the poor, who rely most on water vendors in developing countries.\textsuperscript{256} Increasing block rates may also prevent firms from reaching the economies of scale needed to benefit poorer consumers (by preventing farm consolidation or larger-scale industrialization of energy and water resource development).\textsuperscript{257} As with many of the challenges and opportunities associated with positive rights to public utilities, this issue would likely arise more in urban areas of large developing countries, where the cross-subsidy to poor consumers will require greater distortion of the rate structure due to the larger numbers of economically disadvantaged citizens. Additionally, wealthier households and businesses are more able to bear the cost of water-

\begin{itemize}
  \item \textsuperscript{249} 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, 109 (2003) (discussing the water voucher system in Chile).
  \item \textsuperscript{250} ROUSE, supra note 158, at 209–12.
  \item \textsuperscript{251} Id. at 210–11.
  \item \textsuperscript{252} See generally Pablo Serra, Subsidies in Chilean Public Utilities, Body of Knowledge on Infrastructure Regulation, regulationbodyofknowledge.org/wp-content/uploads/2013/03/Serra_Subsidies_in_Chilean.pdf (arguing Chile designed subsidies targeted to the poor at a relatively low cost to the State).
  \item \textsuperscript{253} Id.
  \item \textsuperscript{254} Id.
  \item \textsuperscript{255} See James Salzman, supra note 165, at 118 n.167.
  \item \textsuperscript{256} Murthy, supra note 44, at 134.
  \item \textsuperscript{257} See id. at 133 (stating that the human right to water and sanitation requires states to examine their tariff structure because of the effect it can have on the poor).
\end{itemize}
efficient or energy-efficient technologies. By supplementing the block tariff approach with the Chilean direct subsidy approach, the poor would be able to afford water connections without the need to seek out water vendors.

A similar approach is possible with energy and sanitation. Utility companies charge low rates at the first block – below the cost of provision – with higher rates charged for higher blocks of consumption (up to an amount exceeding the cost of provision). Revenues generated from those higher blocks would fund directed subsidies at the local level. Those directed subsidies would be provided after an ability to pay determination, such that all consumers internalize the costs of consumption, both to incentivize conservation and to facilitate cost recovery.

However, this approach has potential pitfalls too. The energy and agricultural industries are the largest water consumers, and if block tariffs make water more affordable for the poor, but the costs of increased water rates on energy and agriculture are passed on to the poor in the form of higher energy and food prices, then the block tariff approach might not ultimately achieve the overall goal of equity and affordability. The embedded nature of water and energy – virtual water and virtual energy – make it difficult to establish equitable pricing of these utility services without any increased block rates being reflected in the costs of other goods and services. Ultimately, though, the essential roles of water, energy, and sanitation in achieving a minimum standard of living argues in favor of addressing equitable pricing at the utility level.

Several counterarguments can be made to the general aim of full cost recovery and cost internalization, even for poor consumers of public utility services. In particular, many argue that large general subsidies allow for payment of public utility services without requiring consumers to pay high tariffs. These general subsidies would be funded from general tax revenues.

Advocacy for positive rights is often coupled with arguments in favor of large general subsidies as a means of ensuring expanded access to poor communities and avoiding rate increases. General subsidies in

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258. Reconciling Energy, supra note 5, at 950.
259. See Murthy, supra note 44, at 134 (citing the UNDP’s suggested guideline that no more than 3 percent of household income be spent on water or sanitation).
261. See Elizabeth Burleson, Emerging Law Addressing Climate Change and Water, 5
developing countries are “motivated predominantly by social objectives,” including ensuring provision to the poor, under the assumption that the poor cannot afford to pay for utility services.

The water sector is again illustrative of the problem of direct subsidies and positive rights more generally. Currently, cost recovery of drinking water services in developing countries averages 35 percent, with water prices “set at a fraction of the marginal costs of supply.”

The economic burden of underpriced water in developing countries is approximately $13 billion per year, with total subsidies for drinking water in developing countries exceeding $45 billion per year.

The cost-recovery gap will ultimately harm the poor most. The rich will benefit from subsidized utility services, and the poor will be left without access, with poor quality, or with higher rates they must pay to vendors. The ability-to-pay determination, combined with utility stamps funded from revenues generated through block tariffs, facilitates both cost-internalization for all consumers and full cost recovery. At the same time, it also provides affordable public utility services without excessive public debt or general subsidies that would lead to a lack of consumer cost-internalization.

C. Effective Concession Contracts for Public Utilities

The ultimate success or failure of these tariff reforms may depend on the degree to which utility companies become partners in facilitating a positive right to public utilities. Rates must be set at a level high enough not only to achieve cost recovery and conservation incentives, but also to attract capital, maintain credit, and retain expertise. However, if regulators set rates too high, resulting in monopolistic pricing, and then fail to provide adequate oversight, the positive right to public utilities will be undermined by poor quality and unaffordable rates. And where there is little transparency or

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263. Id. at 36.

264. Id. at 36–37.

265. 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 158 at 47–49 (offering various approaches to improving the valuation of water so as to assist the poor).
stakeholder involvement in developing public utility policy, corruption may ultimately prove more damaging to the prospects of positive rights to public utilities than inadequate pricing or institutional incompetence.

In the case of Cochabamba, bad public utility services were made worse by a bad concession contract, which itself was replaced by further bad public utility services. The failed attempt to improve water utility services in Cochabamba is a cautionary tale for any state attempting to implement a positive right to public utilities. It demonstrates how inadequate concession contracting processes can interfere with attempts to improve public utility services. Any right to public utilities will ultimately prove counter-productive if it is not enforceable, equitable, and sustainable. But effective oversight and enforcement by a specialized judiciary will be meaningless if the concession contract makes other enforceable guarantees that preclude the provision of equitable and sustainable public utilities. And achieving equitable pricing and cost-internalization will be impossible if the concession contract establishes a rate of return that allows monopolistic pricing. As such, specialized public utility courts and tariff reforms must be combined with a fair, transparent, and participatory public concession contracting process. That process must be overseen by the public utility court, which would have authority to grant relief for procedural and substantive violations of concession contracting requirements established by statute.

The process failed in Cochabamba because of a lack of transparency, legitimacy, and oversight. Effective government oversight requires the state to ensure that the concession contract process attracts acceptable potential utility partners. The size of the concession must be large enough to attract good management and achieve economies of scale. This may require coordination of multiple consecutive systems, and the use of technology to integrate those systems, which should be anticipated in the solicitation of bids for the concession contract. The concession contract period should

266. See generally Nickson, supra note 211, at 100 (outlining the pre-contract services and why the contract failed).
267. Rouse, supra note 158, at 207.
268. See James E. Meeks, Concentration in the Electric Power Industry: The Impact of Antitrust Policy, 72 Colum. L. Rev. 64, n.192 (1972) (stating that coordination between power plants can allow them to meet the needed economies of scale) (quoting Commonwealth Edison Co., 36 F.P.C. 927 (1967), aff’d sub nom. Utility Users League v. FPC, 394 F.2d 16 (7th Cir.), cert. denied, 393 U.S. 953 (1969)).
be long enough to encourage management commitment and continuity, but short enough to provide the incentives associated with the re-tendering of the contract.\textsuperscript{269}

Effective government oversight of the concession contract process also requires performance reviews at regular intervals during the contract term.\textsuperscript{270} Underperformance, measured by a failure to achieve regulator-established benchmarks, would result in penalties and possible rescission.\textsuperscript{271} This approach facilitates public-private coordination, contract compliance, and regulatory oversight, and is similar to the approach taken in some regimes for the concession of onshore and offshore development of state-owned oil and gas rights.\textsuperscript{272} The concession contract must also recognize the role of an independent agency for environmental protection.\textsuperscript{273} This independence places environmental protection and resource sustainability on equal footing with effective pricing, and avoids sacrificing sustainability and ecological health in the name of financial viability alone. While the aim of the positive right to public utility is inherently anthropocentric, if it is excessively so, the aim of that right to achieve inter-generational equity will ultimately be frustrated by unsustainable practices.\textsuperscript{274}

Effective government oversight of the concession contract must be coupled with transparency in how the agreement with utility companies is reached and administered.\textsuperscript{275} Importantly, the concession must be made through a transparent competitive bidding process.\textsuperscript{276} The power of competition to achieve efficient pricing cannot be ignored even in the case of natural monopolies. Competitive bidding processes avoid corruption and facilitate affordable rates by awarding concession contracts to the party best able to achieve the objectives of a positive right to public utilities at the lowest cost.\textsuperscript{277}

\textsuperscript{269} Rouse, supra note 158, at 207.
\textsuperscript{270} Id.
\textsuperscript{271} Id.; see also Gail Osherenko, New Discourses on Ocean Governance: Understanding Property Rights and the Public Trust, 21 J. Envtl. L. & Litig. 317, 379 (2006) (“The government should craft contracts . . . with care to allow for periodic performance review . . . .”).
\textsuperscript{272} See Osherenko, supra note 271, at 362.
\textsuperscript{273} See id., at n.319.
\textsuperscript{274} New Right in Water, supra note 4, at 2235.
\textsuperscript{275} Id. at 2248.
\textsuperscript{276} See John Ziegler, The Dangers of Municipal Concession Contracts: A New Vehicle to Improve Accountability and Transparency, 40 PUB. CONT. L.J. 571, 581 (2011) (stating that Chicago needs to have competition and transparency in its concession contracts).
\textsuperscript{277} See id. (stating the competitive bidding requirements will ensure Chicago will obtain
In addition to a transparent competitive bidding process, the contract itself must facilitate transparency by setting forth clear objectives and information sharing requirements. Information sharing would include participation by potential bidders in the formulation of specifications for the system or improvements. The role of information sharing in particular is an effective bulwark against corruption in concession contracting. The terms of the contract should also specify the performance benchmarks against which the utility company will be judged in regular performance reviews. Transparency is the best safeguard against abuses that would undermine a positive right to public utilities.

The concession contracting process must also be perceived as legitimate in order to facilitate a positive right to public utilities. The concession contract should therefore require a participatory stakeholder process and consumer consultation during the term of the contract to ensure successful management and acceptance of the pricing mechanism. And it is through community engagement that legitimacy, sustainability, and racial and gender equality in public utilities are achieved.

Of course, there is no reason a concession contract should be necessary in all instances. Many arguments against full cost recovery and cost-internalization policies are based on concerns about the risks associated with privatization of public infrastructure. Concerns over cost recovery, pricing, and capital investment in infrastructure are often conflated with advocacy for infrastructure privatization, a global trend that has created challenges in many nations.

278. Id.
279. See generally STEVEN KELMAN, PROCUREMENT AND PUBLIC MANAGEMENT 90–95 (1990) (arguing for greater information sharing between private concessionaires and the state).
281. See Nicholas Miranda, Concession Agreements: From Private Contract to Public Policy, 117 YALE L.J. 510, 521–22 (2007) (stating the creation and implementation of concession agreements lack transparency).
282. See id. at 523 (stating that “without accountability” the public is left powerless).
283. ROUSE, supra note 158, at 207.
286. Id. at 2230.
287. See Arnold, supra note 155, at 796, 798 (stating that the privatization of water supplies and infrastructures is a global trend that is appearing prominently in developing countries, but
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 access, and improving quality. 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 utility rates are raised to ensure debts are repaid and profits secured. Although the merits of privatization are beyond the scope of this Article, it is sufficient to note here that cost recovery is not synonymous with privatization. Furthermore, as demonstrated in the Cochabamba example, corruption and a lack of transparency and public participation can occur with or without a positive right to public utilities. Any conception of a right to public utilities, therefore, should include rights associated with stakeholder involvement and transparency in the development of water, energy or sanitation policy, whether through concession contracts to private utility companies or in alternative public management or public-private partnerships in the management of utility infrastructure.

Among the range of options, concession contracts are often an important part of attracting investment and expertise into developing countries in the greatest need of upgrading their public utilities infrastructure. As capital investments are made, and as citizens develop expertise, the concession contract approach can help a state to transition away from private ownership of public utility has led to intense conflicts over a variety of issues and faces public opposition in places such as Bolivia); John Briscoe, *The Changing Face of Water Infrastructure Financing in Developing Countries*, 15 W ATER RESOURCES DEV. 301, 302 (1999) (noting that there is a global trend of an increase in private investment in developing countries’ infrastructures).

288. See McCaffrey & Neville, supra note 105, 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.”).

289. See id. at 700–01 (“Others see private sector involvement as a violation of the right of people to a shared, common resource, and as further alienating poor communities by depriving those without means of the ability to pay for necessary water resources.”).

290. See id. 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 158.


292. See Ziegler, supra note 276, at 575–77 (stating that concession contracts are able to deliver to the public more effectively and at a lower cost than public partners).
infrastructure toward true public-private partnerships and public ownership of infrastructure. Many concession contracts are specifically designed for short-term transitions, including Build-Operate-Transfer (BOT) contracts, where the utility designs, builds, and operates the public utility for a time until it has earned an agreed upon return on its investment, after which ownership is transferred to the public. In these types of public-private partnerships, cost recovery, sustainability, and affordability remain the aims of a positive right to public utilities while the privatization of infrastructure and resources is avoided. These aims can be achieved when the positive right is effectively enforceable by a specialized court, when tariffs allow for full cost recovery, cost-internalization encourages conservation, directed subsidies ensure service for all, and when there is a transparent and legitimate partnership between the state and any private entity engaged in public utilities services.

CONCLUSION

So far, obtaining positive rights to public utilities has largely failed to achieve the aim of greater access to water, energy, and sanitation. However, the positive right to public utilities is still in its infancy as a policy tool. The human rights to water and sanitation have grown in acceptance in both international law and in domestic constitutions, though neither has been widely adopted or enforced thus far. A human right to energy, on the other hand, remains largely theoretical. The human right to energy has perhaps not risen along with the others in part because energy has not been traditionally perceived as essential to human welfare as water and sanitation. However, energy is diverging from water and sanitation as its characteristics become less and less those of a public utility. The increasing use of distributed energy through solar and wind projects

293. See generally Sepp I, Hukka & Katko, Public-Private Partnerships in Water and Sewerage Services: Privatization for Profit or Improvement of Service and Performance, 6 PUB. WORKS MGMT. & POL’Y 45 (2001).


295. See Hanley, supra, note 294, at 72–73 (stating that the gains of privatization are realized while the government still maintains long-term control).
allows for greater competition and lower initial capital costs. Retail-level competition in the energy sector, combined with efforts to deregulate the energy industry, may change the energy sector in ways relevant to the viability of a positive right. Energy would cease to be an effective natural monopoly, and the role of a positive rights approach to energy could come to resemble education and health care more than water. More research is needed on the impact of renewable, distributed energy upon the viability of a positive right to public utilities.

Furthermore, additional research is required to understand where the characteristics of public utilities make a positive right more difficult, and when those characteristics might facilitate a positive right. Where the marginal cost of service is low in an existing system, it may be easier to recover costs at low rates, thus making a positive right easier to achieve. The characteristics of public utilities may thus pose a threat mainly to new systems in urban areas of the developing world. A comparative analysis of existing positive rights to water and sanitation in different areas may reveal when the characteristics of public utilities are assets in the implementation of positive rights and when they are liabilities.

The problems of corruption, unsustainable practices, and lack of enforcement are likely not limited to positive rights to public utilities. When implementing human rights to food, education, or health care, similar challenges are likely to arise and will require careful implementation adapted to the unique characteristics of the good or service guaranteed by the right. A positive right to education, for example, may require adaptive implementation similar to a positive right to public utilities in order to achieve transparency due to the role of state-funded or state-financed education. But the positive right to education may not require cost internalization adaptations such as those proposed for public utilities because there is less concern for sustainability. Each positive right must be adapted to its own unique policy and regulatory environment in order to achieve the aims of sustainability, transparency and enforceability. Without those aims, and without such adaptation, the right will not survive. More research will be needed to determine what unique adaptations are required of other positive rights like food, education, or health care.

It is understandable that policy entrepreneurs seek to prioritize essential goods and services like health care, education, food, water, and sanitation through the enactment of positive rights. Codifying such aspirations as human rights has expressive value, even when
those rights are effectively unenforceable. But the implementation of a human right to each must be adapted to achieve an enforceable right implemented sustainably and with transparency. Too often, vague formulations of human rights lead to corruption and unsustainable practices. To avoid this outcome, all human rights should be implemented with an eye toward what makes the guaranteed good or services unique, with the aim of achieving enforceability, transparency, and sustainability.