

From Water Wars to Water Rights: Implementing the Human Right to Water in Bolivia

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Implementing the newly recognized human right to water (HRtW) poses a variety of challenges for states and raises questions for researchers about how to evaluate the fulfillment of the right. This article sheds light on these questions by exploring the HRtW in Bolivia, a global symbol for HRtW campaigns. The article explores the Bolivian government's approach to implementing the HRtW and evaluates the fulfillment of the right based on access and investment levels, changes to institutions, and analysis of the sociopolitical context in which these changes take place. While the Bolivian state is progressively realizing the HRtW by global standards of access and investment levels, the broader criteria for the HRtW, including citizen participation and democratic decision making, remain largely unfulfilled. This case suggests that, while building state capacity to fulfill socioeconomic rights is key to rights fulfillment, pathways of horizontal and vertical accountability must also be built and strengthened.

The human right to water was not included in the International Covenant on Economic, Social and Cultural Rights (ICESCR) along with the rights to food, health, and education. Global campaigns to establish a legal human right to water have flourished since the early 2000s, inspired in large part by local struggles against privatization of water utilities in the developing world. The human right to water — the right to clean, safe, affordable and accessible water and sanitation services — is now enshrined in over a dozen constitutions and was recognized by United Nations General Assembly Resolution 64/292 in July 2010. There is now broad recognition that a human right to water (HRtW) exists and that states are the primary responsible parties for fulfilling the right (Gerlak, Baer, and Lopes 2013). Implementing the HRtW poses a variety of challenges for practitioners and researchers alike, raising questions as to how states can put the HRtW into practice and how we can effectively evaluate fulfillment of the HRtW at the national level. This article seeks to shed light on these questions by exploring the case of the HRtW in Bolivia.

Bolivia became the poster child for global HRtW campaigns after protests against water privatization in Cochabamba and La Paz/El Alto forced the retreat of multinational water companies from the country in 2000 and 2005. During the Cochabamba “water war,” protestors called for respect for the HRtW and for the creation of public, democratic water utilities with citizen participation and community oversight. When President Evo

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Morales took office in 2006, he expressed his commitment to the HRtW and promised to shift water policy away from a private model to a public, participatory, rights-based model. Although there is a strong government commitment to the HRtW, Bolivia is on the lower end of the spectrum in terms of financial resources and capacity to implement policies, which poses potential challenges for improving access to water and sanitation services. How is the Bolivian government implementing the HRtW? Is the HRtW fulfilled in Bolivia following the shift to a rights-based approach to water services?

The Bolivian government under President Morales is merging human rights principles with national development plans and is making significant changes to national water policy, investments levels, and institutions in the water sector. To evaluate the outcomes of these policies, I create an “information pyramid” (Kempf 1998; Apodaca 2007), which incorporates both quantitative measures of access and investment levels as well as qualitative information about the social and political context in which policies and institutional changes are taking place. While Bolivia is making significant improvements in investment levels and access to water services is improving nationally, I argue that the HRtW remains unfulfilled in Bolivia. Access to quality water services is low in poor and marginalized communities, and the lack of meaningful social participation for citizens in water management persists 13 years after the Cochabamba water war. The Bolivia case shows that, while a state may be progressively realizing the HRtW by global standards, fulfilling the deeper, broader goals of the HRtW at the local level requires more than improvements to access and quality of services; meaningful citizen participation, democratic decision making, and accountability are crucial elements of fulfilling the HRtW.¹ This case suggests that evaluating fulfillment of economic, social, and cultural (ESC) human rights cannot rely only on quantitative measures, which do not capture issues of democratic accountability and citizen participation.

The article is organized in the following way. After a brief summary of the water wars in Bolivia, I turn to a discussion of what we know about how ESC rights are fulfilled and how their fulfillment can be measured. The analysis of the Bolivia case follows, which outlines the government’s approach to putting the HRtW into practice and evaluates the outcomes to date of government policy in the water sector.

Water Wars

After the World Bank pressured the Bolivian government to privatize the water system in Cochabamba in 1999, water prices rose up to 300 percent for some customers, there were service cut-offs to those who could not pay, and the company installed meters on community wells (Finnegan 2002). In response to the privatization of water, a massive movement of ordinary citizens called *La Coordinadora* took to the streets to march, to protest, and to strike to express their opposition to the policy. The protests succeeded in forcing the cancellation of the contract and the return of the water services to the public company in April 2000. The Cochabamba water war was the first successful local battle against water privatization, and it inspired a series of similar campaigns across Latin America and elsewhere to ban privatization and to legalize water as a human right.²

Several years later, organized groups of citizens in the city of La Paz and the adjacent highland city of El Alto forced the Bolivian government to revoke the private contract for water services with Aguas del Illimani (AISA), a consortium controlled by the French water company Suez. There were scattered protests over the seven years that AISA provided water and sanitation services to the two cities, mainly over high tariffs and inadequate service (Spronk 2006b). Most residences in El Alto lack piped water and sanitation

and the majority of people there live in poverty, migrating daily down the steep slopes of the canyon to search for work in La Paz. Protests increased when AISA raised the cost of a new home water and sewer connection to \$445 per household. Given that the average monthly income per capita in Bolivia is \$55, this was completely out of reach for the vast majority of residents. Protests against the water company were organized and led by Federación de Juntas Vecinales ([Federation of Neighborhood Councils] FEJUVE), a group representing over 600 neighborhood boards in El Alto. Fearing a second water war, then-President Carlos Mesa, agreed to cancel the contract with AISA on January 12, 2005.

In January 2006, Evo Morales took office on a platform of indigenous rights, environmental protection, and a brand of economic nationalism that rejected neoliberal policies like privatization. Morales, himself a participant in the Cochabamba water war, expressed his commitment to putting the HRtW into practice. At that time, there were few models for implementing a human-rights-based approach to water policy. South Africa and Uruguay enshrined the HRtW in their constitutions in 1996 and 2004, respectively, but there were essentially no global guidelines for national governments on how to implement the HRtW. While the international human rights regime provides guidelines and enforcement mechanisms for civil/political rights issues such as torture and genocide, the fulfillment of ESC rights is a vastly underdeveloped area of global human rights enforcement, leaving states to develop their own approaches to fulfilling these rights.

Fulfilling Economic, Social, and Cultural Rights

Fulfilling and enforcing ESC rights poses multiple challenges for states and for the human rights regime. ESC rights are viewed as vaguely defined and largely unenforceable (Donnelly 2002; Felice 2003; Landman 2005; Woods and Lewis 2005; Hertel and Minkler 2007), and it is difficult to establish a minimum standard for ESC rights at the international level because local contexts vary so widely (Felice 2003). Government duties vis-à-vis ESC rights are unclear, ranging from direct provision of services to creating an enabling environment in which these rights can be fulfilled through appropriate policies and institutions (Felice 2003: 29). Furthermore, responsibility for ESC rights fulfillment is not limited to states. While the state provides and guarantees domestic civil/political rights (Osiatynski 2007), ESC rights can also potentially be fulfilled (or violated) by individuals, private actors, or civil society groups.

According to international law, states are the primary responsible party for fulfilling ESC rights. States are obligated to “progressively realize” ESC rights using their “maximum available resources” (ICESCR 1976). The terms “progressive realization” and “maximum available resources” are slippery concepts that defy precise measurement (Robertson 1994; Chapman 2007). While civil/political rights are often viewed as dichotomous — the right is respected or it is not — ESC rights are realized over time, based on the state’s resources and the level of priority given to the issue (Richards and Clay 2010). Difficulties in measuring ESC rights fulfillment are compounded by the lack of reliable data and low transparency of governments (Apodaca 2007).

Perhaps in an attempt to bring ESC rights on par with civil/political human rights, there is an emphasis among both human rights activists and researchers on making ESC rights more justiciable, usually by creating a legal right or through constitutional reforms (Felice 1999; Hertel and Minkler 2007; Tinta 2007; Minkler 2009; Harvard Law Review 2007). Indeed, there is a positive relationship between countries with better economic rights provisions in their constitutions and a higher demonstration of government effort toward fulfilling economic rights (Minkler 2009). Conversely, countries with the weakest

provisions for economic rights in their constitutions show the least amount of government effort to fulfill economic rights (Minkler 2009).

However, including ESC rights in constitutions is not a guarantee of rights fulfillment. South Africa has strong provisions in its 1996 constitution for economic and social rights issues but a relatively poor showing of results and government effort to implement them (Minkler 2009). Enshrining rights in constitutions can be an empty gesture, particularly when social movements are co-opted and rights discourse is used to maintain the status quo (Pieterse 2007). Efforts to “translate” rights from abstract constitutional commitments to reality sometimes call for involving the legislatures and courts to make human rights into legal obligations (Felice 1999; Pieterse 2007; Tinta 2007). Yet court-centric strategies have their limits as well, as poor people do not always have access to the judicial system and litigation alone does not necessarily address structural problems that lead to the violation of socioeconomic rights (Yamin 2005).

These issues suggest that looking at constitutional and legal provisions for the HRtW alone would not provide a complete picture of the progress toward fulfilling the right to water for Bolivia. In order to evaluate whether the HRtW is being fulfilled in Bolivia, I examine both the government’s approach to fulfilling the right and the outcomes of that approach on the ground. To guide this analysis, I focus on two questions: What do we know about how states approach putting ESC rights into practice? How can we measure and evaluate fulfillment of ESC rights like the right to water?

Haglund and Aggarwal (2011) identify three models for putting ESC rights into practice: policy legalization and court enforcement, which entails the use of courts to adjudicate rights; the Millennium Development Goals (MDG) approach, which references rights-based development strategies put forward by inter-governmental organizations (IGOs), non-governmental organizations (NGOs), and international financial institutions (IFIs); and the “social guarantees” model, named after a World Bank study that explores the merging of state development policy with explicit references to human rights. In Bolivia, the HRtW is not currently being adjudicated in the courts and the MDGs do not play a prominent role in government policymaking. The Bolivian government’s approach to fulfilling the HRtW most closely resembles the social guarantees model.

The social guarantees approach entails the “definition and widespread communication of rights, entitlements, and standards which enable citizens to hold public policymakers and providers to account for the delivery of social policy,” as well as the “availability of mechanisms of redress” (World Bank 2007: viii). Case studies of the social guarantees approach include assessments of various “subguarantees” or measures of access, financial protection, and quality, as well as mechanisms for redress and participation by citizens. This case study will identify the specific ways that the HRtW is defined and communicated by the Bolivian government and will evaluate the fulfillment of these subguarantees.

Accountability is crucial for transforming human rights rhetoric into practice (Haglund and Aggarwal 2011). Haglund and Aggarwal identify various mechanisms of accountability that work along horizontal and vertical pathways. At the domestic level, horizontal accountability mechanisms are those that create a balance of power between executive, legislative, and judicial branches, that facilitate the regulation of public goods, and that allow for appeals about policies that are not working (Haglund and Aggarwal 2011: 502). Vertical accountability occurs through mechanisms that provide citizens with direct or indirect access to politicians, as well as alternatives to the official political process such as social movement activity, citizen-based commissions, and public reporting. Given that accountability is key to fulfilling ESC rights, this case study will evaluate the extent to which horizontal and vertical accountability mechanisms are being used in Bolivia and to what effect.

Measuring ESC rights fulfillment entails evaluating a state's progress toward fulfilling rights given the resources available. Aggregate measure of ESC rights fulfillment, such as the Economic and Social Rights Fulfillment (ESRF) Index (Randolph et al. 2010), provide a quantitative measure of rights fulfillment in a given country relative to its resources. Budget analysis is another quantitative tool used to evaluate a state's commitment to a particular ESC right (Chapman 2007; Felner 2009; Landman and Carvalho 2010). Analyzing the national budget over time can reveal an increased commitment (or lack of commitment) to a particular human rights issue. This approach has several limitations in the Bolivia case. Bolivia ranks the lowest in Latin America for budget transparency (International Budget Partnership 2012), and raw expenditure numbers do not tell us about specific groups or communities who receive resources, how the money is spent, or how much is lost to corruption (Richards and Clay 2010: 33).³

Another approach to measuring ESC rights fulfillment is to evaluate a country's progress in achieving the benchmarks and goals set by states or international organizations. In the case of water services, this would include achieving national targets for water and sanitation access and progress toward achieving the MDG on improved access to water and sanitation. However, national averages are typically not disaggregated and thus do not reflect disparities in access among particular groups and communities (Chapman 2007: 158). A country could meet its MDG for increased water access without addressing the needs of the most vulnerable or marginal communities.

Data provided by states, such as budgetary commitments and national coverage rates for access to water and sanitation, are crucial pieces of information, but they provide only a "snapshot of rights attainment" (Apodaca 2007: 175). Qualitative assessments are needed to complement and elaborate on this information. Apodaca (2007) proposes measuring the progressive realization of ESC rights using an "information pyramid," a method first developed by Isabel Kempf (1998). An information pyramid for the HRtW consists of three interrelated tiers. Tier 1 contains measures of access to water and sanitation services, quality of water, and pricing. Tier 2 contains both quantitative and qualitative data, including state expenditures in the water sector, combined with an evaluation of changes to relevant government institutions such as regulatory bodies and the creation or dissolution of government ministries. Tier 3 contains an assessment of the social, political, and environmental context in which the policies, investments, and institutional changes described in Tier 2 take place. This level of analysis can include critiques of government policies described in Tier 2, a description of the cultural context for the policies, and reports on how policies are experienced by citizens (Apodaca 2007). Rather than looking only at constitutional provisions, justiciability, budget allocations, or national reports on access to water and sanitation alone, the information pyramid reveals the whole picture of the degree to which the HRtW is fulfilled in Bolivia.

Since Evo Morales took office in January 2006, the Bolivian government has adopted a rights-based framework for the water sector. The Morales administration's approach to fulfilling the HRtW merges rights discourse with development plans, particularly since the inclusion of the HRtW in the new Bolivian constitution.

During the Cochabamba water war, protesters framed the issue as a fight between poor people and a greedy multinational corporation over the basic right to water (Finnegan 2002; Olivera 2004).⁴ After the private contract was revoked in Cochabamba, Bolivian NGOs including the Solón Foundation campaigned for the legalization of the HRtW through a constitutional amendment. The opportunity to enshrine the right to water in the constitution came when Morales announced his intention to rewrite the Bolivian

Constitution. After several years of negotiation and debate the Constitución Política del Estado (CPE) was approved in a national referendum in January 2009.

In addition to cementing the rights of the indigenous majority to land and self-government, the CPE guarantees the rights to water, food, housing, education, and health care to all citizens. The HRtW and the state's obligations are defined in several articles, including Article 20(I), "Every person has the right to universal and equitable access to basic services of potable water [and] sanitation," and Article 20(III), "Access to water and sanitation constitute human rights, [and] are not to be the object of concession nor privatization" (Congreso Nacional 2008).

The Morales government is incorporating the HRtW into national development plans through programs such as MiAgua (*Más Inversión para el Agua*, More Investment for Water), a national program that increases the amount of money invested in water and irrigation projects. The presidential decree announcing the creation of the MiAgua program cites the constitutional language on the HRtW as the justification for the increase in investment for water and irrigation (Decreto Supremo N° 0831 2011).

The Bolivian Ministry of Environment and Water (Ministerio de Medio Ambiente y Agua [MMAyA]) regularly references the government's commitment to the HRtW in its monthly bulletins (MMAyA 2013b, 2013c, 2013d, 2013e). MMAyA provides annual reports on advances in fulfilling the HRtW, sponsors workshops to strengthen and implement the strategic vision of the state to implement the HRtW and holds events that provide information, training, and space for debate and participation by citizens on water issues (Prensa Palacio del Gobierno 2013). For example, MMAyA sponsored a workshop in June 2013 called "Toward the Fulfillment of the Right to Water and Sanitation in Bolivia." At the workshop government officials reported on the steps the government is taking to realize the HRtW, the budgetary commitments the government has made to improve access, and the restructuring and strengthening of institutions toward a more holistic vision for water management (Prensa Palacio del Gobierno 2013).

In addition to referring to water as a human right, Morales has been clear that water services will not be privatized. Speaking about the cancelled contract with AISA for water and sanitation services in La Paz/El Alto, Morales stated that "I am convinced that potable water — water in general — cannot be a private business, but a public service instead" (Medalla 2006a: para. 2). In the public discourse, Morales frequently discusses water and other resources as part of the national patrimony.

The human right to equitable access to water and sanitation has been widely communicated in Bolivia, first by social movement organizations opposing privatization and then by the Morales government. The Bolivian government cites the HRtW in its national development plans and, as the next section will show, is making policy and institutional changes to implement the rights-based vision for water policy in Bolivia.

The Human Right to Water in Bolivia

Tier 1

Tier 1 of the information pyramid contains data on access, quality, and affordability of water services. This section begins by presenting changes to access levels at the national level and then provides data on Cochabamba and La Paz/El Alto. For each city, I evaluate the level of access to water and sanitation, the quality of the water, and the cost of water services to assess affordability.

At the national level, access to water and sanitation has risen in Bolivia under the Morales administration. In 2005, approximately 71 percent of the population had access to potable water (Calí and Jemio 2010: 10). In 2011, the Bolivian government reported that national potable water supply coverage reached 78.5 percent of the population, which reflects an early achievement of the MDGs for access to drinking water. The Morales government claims responsibility for creating 48,000 new potable water connections that supply over 635,000 people.

These improvements are echoed in the World Health Organization/United Nations Children's Fund (WHO/UNICEF) Joint Monitoring Programme for Water Supply and Sanitation 2013 report, which finds that 88 percent of Bolivians have access to an improved source of water.⁵ The report finds that 83 percent of the population has water piped to their homes, and 46 percent of the population has access to sanitation facilities (WHO/UNICEF 2013). However, access levels are lower in rural areas where only 57 percent of rural homes had access to water in 2011 and only 24 percent had access to improved sanitation facilities (WHO/UNICEF 2013). See Tables 1 and 2 for national coverage for water (both improved access and piped onto premises) and sanitation (improved access and shared access) from 1990–2011.

Tier 1 — Cochabamba

The most recent official data on Cochabamba's water system is from the 2006 Superintendencia de Saneamiento Básico (SISAB) report, which indicated that the public water company Servicio Municipal de Agua Potable y Alcantarillado (SEMAPA) had the lowest coverage of potable water in the country at 46 percent (60,852 connections) and the lowest for sanitation at 50 percent (64,952 connections) (SISAB 2006; Salinas 2007: 104). The percentage of the population served has actually declined since 1996 (see Figure 1), partly due to lack of new infrastructure to match a growing population. This decline stands in contrast to the increase in water and sanitation coverage at the national level described above (see Tables 1 and 2).

Although there is no official data from SEMAPA on current coverage rates, the Cochabamba newspaper *Los Tiempos* reported that in 2013 SEMAPA covered approximately 50 percent of the demand in Cochabamba, 25 percent is provided by community-run systems, and the remaining 25 percent of the population purchase their water from cisterns sold door to door (Manzeda 2013). The areas within the SEMAPA network are disproportionately in middle- and high-income neighborhoods, while the poorer districts in the *Zona Sur* (Southern Zone) must find other ways to get water (Jaldín 2012). In some

Table 1
Estimated National Water Coverage – Access to Improved and Piped Onto Premises Combined, 1990–2011

Year	Coverage
1990	69%
1995	74%
2000	79%
2005	83%
2010	87%
2011	88%

Note. Data from WHO/UNICEF (2013).

Table 2
Estimated National Sanitation Coverage – Access to Improved and Shared Access Combined, 1990–2011

Year	Coverage
1990	40%
1995	47%
2000	53%
2005	59%
2010	65%
2011	66%

Note. Data from WHO/UNICEF (2013).

communities outside the SEMAPA network, residents have organized their own water systems by digging wells, pumping water to tanks, and covering the cost of repairs as a community (Shultz 2008: 37). Some of these community-organized water committees work with SEMAPA in various arrangements to share resources (Shultz 2008: 37–38), while other communities oppose any link to SEMAPA and are truly autonomous water providers.

Even districts within the main SEMAPA network experience water shortages and other problems. Water pressure is so low that residential water pumps are often used to fill water tanks on roofs. SEMAPA loses approximately 20 percent of its water through leaks in the poorly maintained network (Medalla 2006b). Water generally flows through pipes no more than five days of the week within the network (Chávez 2006).

The quality of water in Cochabamba is difficult to verify due to lack of accounting and public information. SEMAPA annual reports do not provide data on water quality. The former government regulatory body, the SISAB, reported in 2004 that SEMAPA had 90 percent “water quality control,” but the report does not define this measure or explain how the percentage was calculated. In 2009, the newspaper *El Diario* reported that water provided by SEMAPA had “alarming levels of contamination” (Business News Americas 2009). Residents report that the water sold in cisterns has bugs, grass, and dead fish

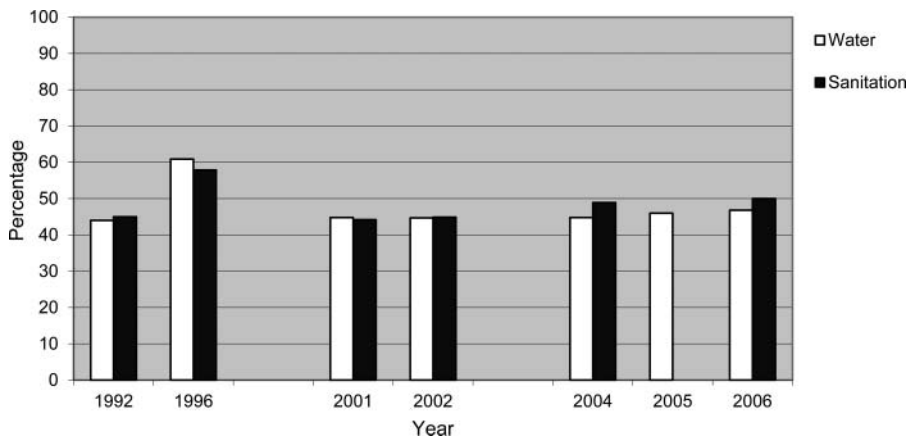


Figure 1. Coverage rates for potable water and sanitation in Cochabamba, 1992–2006 (SISAB 2002, 2004, 2006; Salinas 2007).

floating in it (Jaldín 2012). The NGO Fundación Abril reports that 80 percent of drinking water goes untreated in Bolivia (Fundación Abril 2013). These reports indicate that the water provided by SEMAPA is not safe for drinking. Lack of proper sanitation and wastewater treatment is another problem, particularly in the Southern Zone of Cochabamba. Fundación Abril reports that only 14 percent of wastewater is treated before being put back into the environment, leading to contamination of rivers and other waterways.

The cost of water in Cochabamba per cubic meter is not listed on the SEMAPA website or in the annual reports. Residents within the SEMAPA network store water in containers to prepare for the days each week when there is no water, and they are often forced to buy bottled water at approximately \$2.50 per liter for drinking and cooking because of the poor quality of piped water (Chávez 2006). Some residents are forced to buy bottled water from street vendors, which is generally very expensive and of poor quality (Forero 2005). Although residents of the Southern Zone use less water, they pay more for it than their wealthier neighbors in the northern part of Cochabamba (Jaldín 2012).

While national averages for access to water services are improving, low coverage levels for water and sanitation persist 13 years after the water war in Cochabamba. The quality and affordability of water services in Cochabamba is unsatisfactory, and approximately half of the population is not connected to the public utility.

Tier 1 — La Paz/El Alto

Six years after the cancellation of the contract with AISA, similar issues exist in the poorer and marginalized areas of La Paz/El Alto. Figures 2 and 3 show water and sanitation coverage rates for La Paz and El Alto from 1992–2005. Table 3 shows water and sanitation coverage rates for La Paz and El Alto combined from 2003–2005.

Service coverage for La Paz and El Alto combined was high at the time of the contract cancellation in 2005 with 99.8 percent of the population reported to have access to potable water and 80.4 percent with access to sanitation (SISAB 2006). These high percentages can be misleading. A government audit of AISA found that the company inflated its coverage numbers when reporting to the government regulatory body, the SISAB. AISA was counting houses as “served” if the network pipe ran past their home, regardless of whether the homes were connected to the network. Also, in some data, access to a public *pileta* (basin) is considered access to water even though it is not an in-house

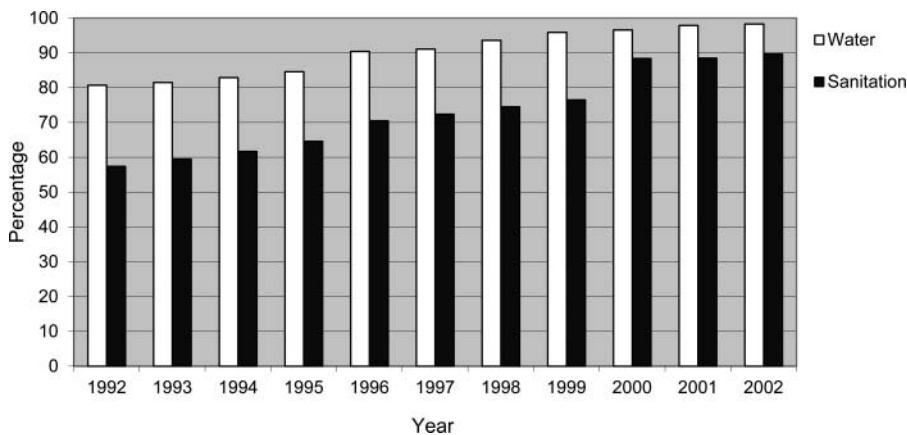


Figure 2. Coverage rates for potable water and sanitation in La Paz, 1992–2002 (SIRESE 2002).

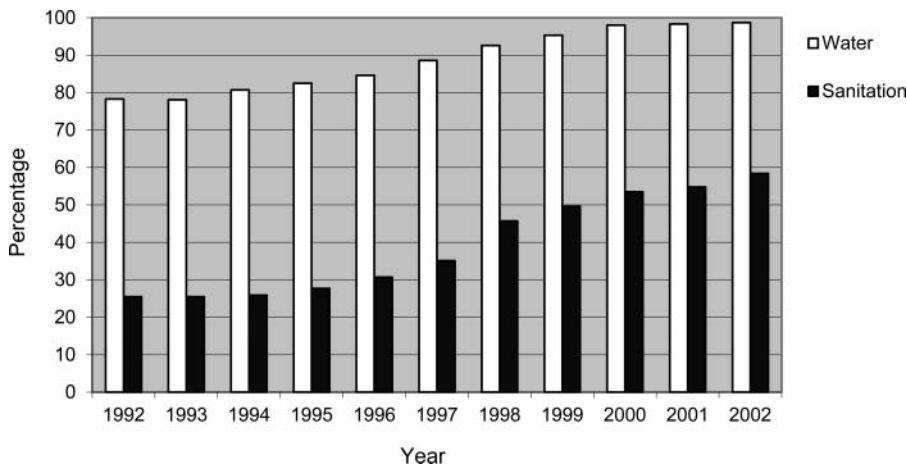


Figure 3. Coverage rates for potable water and sanitation in El Alto, 1992–2002 (SIRESE 2002).

connection. Numbers are likely also distorted by inaccurate census data in El Alto, a constantly growing city with a large amount of informal housing not captured in census data. Furthermore, AISA was unwilling to extend service to many of these new residents in El Alto even if they were residing within the service area designated in the concession. AISA was deterred from meeting its obligations to provide water services in these peri-urban areas by both the cost of expanding infrastructure to these neighborhoods and the fear that low consumption of water by residents in these communities would mean low water bills and less revenue for the company.

Since the cancellation of the private contract in 2006 and the creation of Empresa Pública Social del Agua Potable y Saneamiento (EPSAS), the public water utility for La Paz/El Alto, the reported coverage levels in La Paz and El Alto have remained high. In 2010, water coverage was 97.6 percent in La Paz and 88.7 percent in El Alto (EPSAS 2011: 16). In La Paz, 88.9 percent of the population had access to sanitation and 53.7 percent had access to sanitation in El Alto (EPSAS 2011: 16). A 2011 report on EPSAS performance shows that EPSAS met or exceeded expansion goals set by the five-year plan created at the end of the contract with AISA.⁶

Official data on water quality and pricing in La Paz/El Alto are not available since the contract with AISA was cancelled. EPSAS annual reports do not provide this information nor do the government institutions in the water sector. Although there is no information about pricing, EPSAS provides information about its subsidy system, the “*tarifa solidaria*” (solidarity tariff) (EPSAS 2008). This measure freezes the unit cost per cubic meter of water at Bs1.178 (US\$0.17) for consumption of less than 15 cubic meters per month. It

Table 3
Coverage for La Paz and El Alto Combined, 2003–2005

Year	Water (%)	Sanitation (%)
2003	98.8	78.9
2004	98.7	80.0
2005	99.8	80.4

Note. Data from SISAB (2006) and Salinas (2007).

is applied for one year. This solidarity tariff applies to 89 percent of domestic users in El Alto and 57 percent of domestic users in La Paz (EPSAS 2011: 16). To facilitate access to service, EPSAS is establishing credits for the connection fees in the form of loans for a period of 3 to 36 months without interest or initial down payment (EPSAS 2008).

Despite these accomplishments, EPSAS is struggling to maintain service to the approximately 1.5 million residents of La Paz and El Alto. One report claims that 40 percent of the population of La Paz suffers from supply cuts, and that water network breaks have led the utility to deliver water by truck to areas affected areas (Business News Americas 2008).

Tier 2

Tier 2 of the information pyramid documents relevant government policies, investments, and institutional changes aimed at fulfilling the HRtW at the national level and in Cochabamba and La Paz/El Alto. National investment levels for water and sanitation in the early 1990s averaged US\$40 million per year, rising to an average of US\$90 million per year for 1996–2000 (Ministerio de Vivienda y Servicios Básicos 2001: 24). Investment for water, sanitation, and irrigation access has increased significantly since 2005 from \$US72.4 million in 2005 to \$US188.1 million in 2012 (Business News Americas 2013b). The Morales administration reports that it invested over \$372 million in the water and sanitation sector between 2006 and 2011 (Business News Americas 2011b).

In 2011, the Morales government launched the MiAgua program with the promise to invest millions more to improve the country's potable water and irrigation systems. The program draws on external funding for 85 percent of these investments (MMAyA 2013a: 2).⁷ The Morales government credits the implementation of MiAgua Phases I and II for Bolivia's early compliance with the MDGs and for Bolivia's progress toward implementing the HRtW (MMAyA 2013a: 3).

The MiAgua program allots approximately US\$300,000 for water and irrigation projects for each municipality. Water projects funded through this program are targeted toward rural areas and include ecological toilets constructed using local labor, as well as projects in El Alto for draining residual water and bringing waste to a new treatment plant. In 2012, MMAyA assigned US\$212 million to fund water projects including potable water connections, sanitation, irrigation, and basin management projects with the goal of extending water service to 160,000 residents and benefiting 23,696 agricultural producers (Business News Americas 2012). According to the proposed budget for 2013, MiAgua III earmarked US\$104 million in investments for 2013 (MMAyA 2013a: 3).

Immediately after taking office, Morales began restructuring the water sector by creating a new Ministry of Water in February 2006. Morales showed his commitment to a new direction for state water policy by naming FEJUVE-El Alto leader Abel Mamani as the first Minister of Water. According to Bolivian water and development expert Betty Soto, the Ministry of Water was "one of the smallest and weakest [government ministries] in terms of management" (B. Soto, author interview December 12, 2008). The Ministry struggled to develop public policies in line with the new constitutional language regarding the HRtW (C. Gómez, author interview December 12, 2008; J. M. Calderón, author interview December 12, 2008). This institutional structure changed again in February 2009 when the Morales government created the MMAyA, which comprises three vice ministries for water, irrigation, and the environment.⁸

These new ministerial bodies are charged with drafting a new Water Law for Bolivia. With the new constitution in place establishing the HRtW, water legislation must be

revised to reflect a rights-based approach to water management. The government has failed to revise Bolivia's Water Law despite continued pressure from water users and irrigation associations. The lack of a new Water Law after so many years is a source of frustration and criticism among water experts and practitioners (See Bustamante 2011; Crespo 2013). A 2013 draft of the Water Law produced by the Bolivian government and MMAyA entitled "*Agua Para la Vida*" highlights the HRtW as a central element in the nation's legal framework for water management. The proposed draft defines the HRtW as including the rights of individual Bolivians to sufficient water, the right to food security for Bolivia as a nation, and the rights of *Pacha Mama* (Mother Earth) to have water sources protected and respected (Estado Plurinacional de Bolivia and MMAyA 2012).

In addition to restructuring the government water ministries, Morales also made drastic changes to the regulatory structure for water and sanitation services by dissolving the government regulatory body, the SISAB. The competency of the SISAB, particularly during the conflicts over the contracts in Cochabamba and La Paz/El Alto, came under fire from all sides of the water privatization debate in Bolivia. The SISAB did not have control over the performance of AISA, and the regulatory body permitted the lack of transparency in AISA's financial accounting (Oporto 2007: 53). The Morales government replaced the SISAB with the Authority for Oversight and Social Control for Drinking Water and Basic Sanitation (AAPS). AAPS has a similar mandate to the SISAB, although it may also grant concessions. The AAPS is directly responsible to the Ministry of Environment and Water (MMAyA), indicating that the regulatory body is now more closely tied to the state.

Tier 2 — Cochabamba

Structural changes made to the public utility in Cochabamba following the 2000 water war were the result of pressure by mobilized citizens to transform the management and operation of water services in Cochabamba. These changes occurred several years prior to the shift toward a rights-based framework for water management in Bolivia initiated by the Morales administration. The reversal of water privatization in Cochabamba (and later in La Paz/El Alto) and the push for new forms of water management was part of a larger process of challenging neoliberal policies and seeking citizen-based alternatives in Bolivia at this time.

In Cochabamba, *La Coordinadora* called for the creation of a new public water company with democratic, participatory mechanisms to allow citizens decision-making power in the company. Simply reverting back to the public company as it was before privatization would not have achieved that goal. SEMAPA was known to be corrupt and inefficient prior to privatization (Driessen 2008b), and citizens tend to mistrust state-run services because of that corruption (Spronk 2007). Citizens favored a model for SEMAPA that incorporated "social control," a participatory management model that would formalize citizen participation into the technical, managerial, and operational functions of the company.

La Coordinadora and other civil society groups put forward several proposals to reform SEMAPA (Spronk 2007; Driessen 2008b), the majority of which were blocked either by the water utility union or by government officials in Cochabamba. The New Republican Force (NFR) political party, the party of then-Mayor of Cochabamba, Manfred Reyes Villa, controlled the SEMAPA Board of Directors and resisted many of *La Coordinadora's* proposals. These proposals included removing SEMAPA from municipal ownership and regulation by state authorities to give SEMAPA more operational freedom and autonomy, implementing participatory budgeting, and establishing ownership of the utility as communal property (See Spronk 2007).

Social control within SEMAPA ultimately took the watered-down form of including four “citizen directors” to be elected by residents onto the nine-person SEMAPA Board of Directors.⁹ While the inclusion of citizen directors on the board was a major compromise for the social movement who wanted more direct citizen participation, the hope was that this structure would provide some oversight of the management of the company.

The other form of direct citizen participation in water management in Cochabamba is found in the approximately 120 community-based water committees that formed in the Southern Zone of the city. These local water committees are organized into an Association of Community Water Systems of the South (ASICA-Sur). ASICA-Sur received some funding from the European Union to build water networks in Districts 7 and 14 of the Southern Zone (Spronk 2008). These networks are to be administered by independent user groups, some of which will buy water from SEMAPA. These community water systems draw water from rivers or from drilled wells. Some committees have constructed pipelines to bring the water directly to homes. ASICA-Sur is focusing on building new, independent water systems in areas outside the SEMAPA network, some with funding from international sources (Spronk 2008).

In some areas, ASICA-Sur has worked with SEMAPA to define a new model of comanagement called a “public-collective partnership” between the utility and the water committees (Sánchez Gómez and Terhorst 2005: 127). A founding member of ASICA-Sur who later became a citizen director on the Board of SEMAPA, Luis Sánchez Gómez, proposed a Plan of Expansion in 2001, which was approved by the SEMAPA Board. This is an example of how citizen directors can be successful in bringing the demands of users to the company. However, implementation of the expansion plan thus far has been slower than hoped due to opposition from the mayor and the marginalization of ASICA-Sur from power within SEMAPA (Driessen 2008b).

Tier 2 — La Paz/El Alto

Changes to the public utility in La Paz/El Alto are ongoing, as EPSAS remains in a period of transition since its creation in 2007 (Hans Soria O. 2013).¹⁰ The transition team includes former AISA employees, and many of the administrative structures of AISA remain in place in ESPAS. In an effort to include citizen participation, members of FEJUVE-El Alto were given seats on the commission to determine the new model for the company.

The shift from a private model to a human-rights-based approach to water services is described in EPSAS public reports:

In contrast to the ex-concessionaire AISA with a vision of a policy of privatization, whose goal was to make a profit with the potable water and sanitation services, in the current EPSAS, these profits are reinvested in works to improve the quality of life and to offer more possibilities for access to potable water and sanitation to the whole population of the cities of La Paz and El Alto. (EPSAS 2008: 5)

In 2010, the La Paz city council recommended replacing EPSAS due to its failure to address problems with access to water and sanitation, which ESPAS interim General Manager Victor Rico attributed to lack of available funds for investment (Business News Americas 2010). EPSAS employees went on strike demanding the resignations of the company leadership over alleged irregularities and poor

management (Business News Americas 2011a). Rico and the Board of Directors later resigned under pressure from the union. On April 1, 2013 the government revoked the operating permit of EPSAS for breach of the Bolivian Constitution, administrative inefficiencies, and lack of investment (Business News Americas 2013a). According to the Morales government, EPSAS has failed to invest the promised amount of \$US18.5 million since 2006. One of the challenges for the transition company has been balancing the expectations of the users for lower tariffs with the need to expand the area of service, a task that Rico described as “mission impossible” (Oporto 2007: 71).

The Morales government has significantly increased the level of investment in the water sector, and national development plans make explicit reference to the state’s obligations to fulfill the HRTW. Institutional changes at the national level, such as the creation of new regulatory bodies and water ministers signal a commitment to a new direction for water policy in Bolivia. Changes to water utilities in Cochabamba and La Paz/El Alto have focused on shifting the vision and management models of the companies. The following section elaborates on the impact of these changes.

Tier 3

Tier 3 of the information pyramid contains an assessment of the context in which the policies, investments, and institutional changes described in Tier 2 take place. The focus will be on several illustrative examples of how government policies are experienced in practice, with an emphasis on the changes to the Cochabamba water utility, SEMAPA. Particular attention is given to the degree to which pathways for horizontal and vertical accountability have emerged since the shift toward a rights-based framework for water management under the Morales administration.

The Morales administration has restructured the entire water sector in Bolivia through the creation of new institutions and agencies. The pathways of horizontal accountability described by Haglund and Aggarwal, such as regulatory functions and oversight in policy creation and administration (Haglund and Aggarwal 2011: 502–503), are meant to provide a balance of power at the domestic level. At this time in Bolivia, these pathways of accountability in the water sector are unclear (Bustamante 2011). New institutions such as MMAyA and AAPS appear to be disconnected from existing governmental authorities, and new institutions have been created while others have disappeared without explanation (Bustamante 2011).

The restructuring of water ministries by Morales described above has created divisions among different sectors, as separate ministries now deal with irrigation, drinking water, and environmental concerns. This creates conflict among water users as each sector works to ensure its own rights and its own “piece of the river” at the expense of solidarity and cooperation (Bustamante 2011). According to *La Coordinadora* leader Oscar Olivera, the MMAyA was created under pressure from social organizations, yet it is now run by a small group of people who are “completely ineffective and incapable” (Olivera 2012: 85). Others claim that foreign interests, such as the German Development Organization GTZ (German Organization for Technical Cooperation), control the MMAyA through their input on budgeting and personnel decisions (Fernández 2012). The regulatory body is called the Authority for Oversight and Social Control for Drinking Water and Basic Sanitation, a title that includes the term “social control.” Yet by some accounts, true social participation in water policymaking has not occurred and the relationship between civil society organizations and this new institution is unclear (Bustamante 2011).

Citizen participation in water management and decision making is a core element of the HRTW and is crucial to creating vertical accountability between the state and the population. Vertical accountability mechanisms include information framing and dissemination of information, consciousness raising, participatory hearings, and public exposés by scholars, activists, and community leaders (Haglund and Aggarwal 2011: 502–503). In Bolivia, civil society groups are making use of these mechanisms to draw attention to the areas where the Bolivian government is failing to meet expectations in the water sector and to demand accountability from the Morales administration.

Critiques of the Morales government's approach to water management are emerging from key voices within the Bolivian water sector including water activists, researchers, and NGOs. These criticisms center around the centralization of state power and control over water management, the erosion of the autonomy of self-managed community water systems, the reliance on financial support from foreign groups which activists fear are pushing a neoliberal agenda, and a lack of true social control and social participation in water management.

The US\$300,000 in funds provided to each municipality for water projects under the MiAgua program is given with no oversight or social participation in the projects, and the majority of these funds are provided by international sources, which citizens tend to distrust (Olivera 2012: 86). New irrigation projects funded by the MiAgua program fail to consider whether the capacity to administer the new project exists in the communities (Fernández 2012). Fundación Abril reports that under the MiAgua program, the improvement of community water systems is contingent on the "municipalization" of these water systems, whereby the resources and management of the community-built system is turned over to the municipal water company (Fundación Abril 2012: 4–5). This is viewed as an attempt by the state to expropriate the water sources and the networks built by communities (Olivera 2012: 87). Some water activists take issue with the name of the government program itself; MiAgua translates to "my water," which reinforces an individualistic idea of water management rather than a social or community idea (Fernández 2012).

Water activists claim that the Morales government is not working with civil society organizations to develop water policy, opting instead to centralize control and to work with foreign groups on water projects (Crespo 2012; Fundación Abril 2012; Olivera 2012). One example is the lack of participation by community water users in developing each community's "master plan," a thorough study of the available resources and water needs of communities. The Spanish government and the Inter-American Development Bank are financing these master plan studies. The group charged with creating the new master plan for Cochabamba does not include representatives from the local water cooperatives (Fundación Abril 2012: 3–4). Civil society groups are drawing parallels between this kind of state control over community water systems to that of the neoliberal era, when control was passed to private entities (Fernández 2012; Olivera 2012).

Civil society groups and water users have held summits, workshops, and public seminars with invited speakers to discuss the status of water services and to provide testimonies on the government's performance in the water sector. The National Summit for Basic Water and Sanitation held in Cochabamba in 2011 included calls for the government to comply with its commitment to treating water as a human right and not a commodity (Heredia 2011). Speakers raised concerns over the need for the government to protect natural water resources and the rights of indigenous people to water access. While this summit was held to address the government and the water ministry on its approach to water management and policymaking, there were no representatives from the government or the MMAyA at the event (Heredia 2011).

A series of three workshops in 2012 brought together autonomous water cooperatives, people representing irrigators, and water scholars to share proposals for the new Water Law (Olivera Rodríguez et al. 2012). The testimonies presented at the workshops described the lack of consultation with local communities by the state and critiqued the plans to municipalize autonomous water committees. These workshops and public events are informal, societal forms of accountability aimed at sharing and disseminating information among the affected communities. They serve to draw attention to the critiques of the Bolivian government's actions in the water sector emerging from the local level.

Fulfilling the HRtW requires vertical accountability mechanisms that allow water users to demand transparency and accountability not only from the state but also from their local water utility. During the water war, citizens of Cochabamba demanded that the local water utility be restructured to allow some form of citizen control. The assignment of four elected citizen directors on the SEMAPA Board of Directors is meant to provide a pathway for accountability of the water company through citizen participation in the utility. However this process is breaking down in two places: lack of citizen involvement in electing the citizen directors and deeply entrenched patterns of corruption that prevent citizen oversight of the company.

In the first election for the new SEMAPA Board of Directors in April 2002, only 2,000 people voted out of a total population of 650,000 (Spronk 2006a). *La Coordinadora* attributed this low turnout to restrictive voting rules that allowed only heads of households to vote (Spronk 2006a: 21). This rule was subsequently eliminated so that all citizens over 18 years of age could vote in the next election in October 2004. Despite this change, turnout in this second election was similar to that of the first election. However, voter turnout for the SEMAPA election was higher than the turnout for the municipal election in December of the same year, which suggests that low voter participation is a general problem in Cochabamba (Spronk 2006a: 21). It is possible that people did not participate in higher numbers because the inclusion of citizen directors on the board was not the far-reaching reform that water activists and citizens had hoped for; simply electing board members was not the same as actively participating and making collective decisions (Spronk 2006a).

The ability of citizen directors to effectively represent citizens and to act as a check on the management of the utility is weakened by entrenched patterns of corruption by political elites (see Driessen et al. 2009; Driessen 2008a, 2008b). Evidence of political influence over the board can be seen in how new projects are executed, as service expansion and improvement tends to map onto areas of political support for politicians with a role on the board (T. Driessen, author interview December 4, 2008). Union and political elites resist the implementation of social control in practice, and they have blocked investigations of SEMAPA employees for corruption called for by citizen directors (Spronk 2006a). A 2007 audit of SEMAPA showed over 51 irregularities in 2006 by management, with an estimated cost of over US\$600,000 to the company (Driessen 2008a). In 2010, SEMAPA fired 150 workers to address a \$3 million deficit attributed to various forms of corruption by SEMAPA workers (Achtenberg 2013). While some forms of large-scale corruption such as *diesmo*¹¹ and paying off managers and other authorities may have lessened in recent years, small-scale forms of corruption by utility workers such as clandestine connections and working for cash outside of the official channels continue (Crespo 2012).

Corruption has historical roots in Cochabamba's water company. The practice of *prebendal*, a reciprocal relationship between local politicians and their supporters working in public companies, has been taking place in Bolivia since the 1950s. These public

workers use the companies for their own financial gain, and politicians protect them in exchange for their support. In Cochabamba, municipal elites have used SEMAPA to funnel money to employees and managers and for their own *botín político* (political gain) (Driessen 2008a).

There is an “organizational culture of corruption” within SEMAPA that continues after the water war (T. Driessen, author interview, December 4, 2008). Nepotism is rampant within SEMAPA, resulting in people without the proper technical qualifications holding key jobs in the utility. Many citizen directors also lack the knowledge and capacity needed to effectively monitor the financial aspects of the company (Oporto 2007). Citizen directors receive no formal training for their positions when they are elected (Driessen 2008b: 6), and the information about the utility is not tailored to nonexperts. The technical experts in the company generally discount ordinary citizen knowledge about water issues (Driessen 2008b). Citizen directors themselves have been accused of interfering in the operation of the company (Oporto 2007: 40) and becoming involved with the practices of *prebendal*, clientelism, nepotism, and using the election to the SEMAPA leadership as a jumping off point for other political goals (Oporto 2007: 40–41).

Despite the entrenched patterns of corruption and lack of capacity, there are cases where citizen directors have successfully challenged the power structure within the utility. Two general managers of SEMAPA, Gonzalo Ugalde (2002–2005) and Eduardo Rojas (2006–2007), were dismissed for corruption following investigations initiated by citizen directors (Driessen 2008b; Spronk 2008). These general managers used the company as a source of *botín político*, mainly by hiring friends and family at high salaries.¹²

Instituting social control in SEMAPA through the election of citizen directors has not solved the main problems with the utility in Cochabamba (Spronk 2008). Despite the fame of the water war, SEMAPA is now seen as a model of what *not to do* in a public water company (Spronk 2008; H. Paredes, author interview, November 24, 2008). Hernán Paredes, city councilman for La Paz, evaluates the situation this way: “The discourse is that water is a right, it is a public good. But the exercise of this right is not being accomplished. It is not effective — it remains a discourse. Nor is water a commodity. Rather, inefficiency and mismanagement is killing the right of the citizen to water” (H. Paredes, author interview, November 24, 2008).

There is disappointment over the lack of improvement in water services in Cochabamba 13 years after the water war, and there is a sense of betrayal of the original vision and sentiment of the protests (Olivera 2012). Olivera writes of *La Coordinadora’s* vision as one of horizontal power, community participation in decision making, and a new social and economic structure for society (Olivera 2012: 78; Fundación Abril 2012: 2). Olivera explains that citizens in Cochabamba wanted neither privatization nor state-controlled services; rather, they wanted self-management and autonomy (Olivera 2012).

Conclusion

Protests against water privatization in Cochabamba and La Paz/El Alto sparked a national debate over how water resources and services ought to be managed in Bolivia. The success of these protests in overturning privatization emboldened a growing movement against neoliberal policies that had been simmering in Bolivia for years. Under the administration of Evo Morales, a supporter of the HRtW and the water war in Cochabamba, the Bolivian government began implementing a human-rights-based approach to development policy in the water sector. This approach merges human rights principles and

rhetoric with fiscal commitments to increase investment in the water sector. Bolivia provides an example of the social guarantees model of ESC rights fulfillment, where states merge the promise of equity and justice inherent in a human rights approach with concrete policy, institutional, and budgetary changes.

In evaluating the degree to which this approach has led to the fulfillment of the HRtW in Bolivia, the information pyramid presented here provides a mixed picture. Tier 1 measures reveal that at the national level access to water services is steadily improving, although coverage levels in El Alto and Cochabamba are still low. The Tier 2 analysis shows that the Morales government has nearly tripled investment in the water sector and has created new programs and institutions at the national level that specifically cite the HRtW as a guiding principle. Although progressive realization and available resources are imprecise concepts, increased investment and access to water services indicate that the Bolivian government is making progress toward fulfilling the HRtW according to the ICESCR language.

The information presented in Tier 3 paints a different picture of the government's progress toward fulfilling the HRtW. Entrenched patterns of corruption in SEMAPA and an extended transition period with an uncertain future for EPSAS are barriers to improving services in these cities. Local water activists are critical of the government's approach to water management as one of power centralization and exclusion of citizens from decision making. Of particular concern is the lack of support for and consultation with the self-managed community water systems in the Southern Zone of Cochabamba. For some water users and activists, the HRtW itself is now viewed as an individualistic concept that pits users against each other. While access to water may be improving in Bolivia, the hope that revoking privatization in favor of a public, truly community-based water service remains largely unfulfilled.

The social guarantees model of ESC rights fulfillment entails merging human rights discourse with development goals and policies, yet fulfilling ESC rights entails more than rhetorical shifts and increased investments. The Bolivian case provides empirical support for Haglund and Aggarwal's (2011) contention that accountability is the key to translating human rights norms into practice. ESC rights fulfillment is not merely a transfer of resources to the poor but also entails creating avenues for citizens to exercise their agency and claim their rights. These accountability mechanisms are breaking down in a number of ways, as evidenced by the unclear relationship between government water institutions, the lack of citizen consultation on local water policy, and attempts to take over autonomous water systems by the state.

The Bolivian case provides a clear example of how accountability failures can hinder the fulfillment of ESC human rights. While building state capacity to fulfill socioeconomic rights is key to rights fulfillment, pathways of horizontal and vertical accountability must also be built and strengthened. In the absence of official pathways and strong mechanisms of accountability within governments, citizens have few tools of accountability at their disposal. In the Bolivian case, critiquing governmental actions at workshops, summits, and other public forums provides some degree of informal accountability. Yet, it remains to be seen whether or not the Morales administration will respond and address these critiques. Furthermore, the lack of institutionalized pathways of accountability can pose problems for future citizen participation in water policy if Morales's successor does not share his commitment to the HRtW.

The Bolivian state may be progressively realizing the HRtW as defined by global standards, yet the critiques from the local level regarding the democratic deficit in water management suggest that the HRtW is still unfulfilled. Although states are responsible

for fulfilling ESC rights according to international law, fulfilling the HRtW is more complex than just providing the necessary investments, institutions, and policies. When evaluating ESC rights fulfillment, quantitative measures alone do not capture the level or quality of social participation in practice. Measuring the fulfillment of socioeconomic rights must go beyond quantitative measures to incorporate an analysis of the broader social, economic, and political context.

Bolivia serves as a symbol for the global movement for the HRtW based on the fame and success of the water war, yet the deeper promise of the HRtW is not currently fulfilled there. Bolivian water users and activists are calling for more than improved access to water and a ban on privatization; they are demanding a form of social transformation that comes with true citizen participation and meaningful governmental accountability. The Bolivian case reveals a tension between the need for a state role in urban water services and the dangers of subsuming community-led water systems under state control. By eschewing both private and state-controlled approaches to water management, these groups are challenging the dichotomy between public and private water management that dominates the global debate on water policy (Bakker 2010).

Decentralized water management based in communities that are willing and capable of managing water and sanitation services might be the answer to fulfilling the HRtW in Bolivia. Yet, decentralization presents a challenge for states. As the Cochabamba case shows, corruption and incompetence in public water utilities is an obstacle to effective service provision. Returning to the private sector is not a viable solution, as it will not solve the problem of lack of accountability and is incongruent with a rights-based approach to water management. State capacity to invest and regulate the water sector alone will not fulfill the HRtW; citizen capacity to manage community water systems and to hold the state accountable are crucial elements necessary to achieve the deeper goal of social transformation proposed by Bolivia's water war.

Notes

1. This research is based on interviews carried out in Bolivia in 2008 and archival research conducted using annual water utility reports, annual reports by government regulators, newspaper accounts, materials from NGOs, unpublished reports by water analysts, and secondary sources on the water sector. Interview subjects include water policymakers, government officials, members of water regulatory bodies, members of NGOs, water union members, water utility workers, World Bank staff, and water policy analysts.
2. The story of the Cochabamba water war is recounted in detail elsewhere (see Olivera 2004 and Finnegan 2002).
3. Furthermore, budget allocations do not capture other sources of funding that are used to achieve ESC rights, such as international aid and loans (Richards and Clay 2010: 33).
4. Local NGOs in Bolivia do not always refer to a "human right to water" specifically. The idea that water is a "*derecho para la vida*" (a right for life) is often used as well. This is because the term "human right" implies that water is only a right for people to the exclusion of other living things. This is in keeping with ideas rooted in indigenous beliefs that resources are not to be owned by individuals, and that animals also have rights to water and other resources (A. Flores, author interview, December 12, 2008).
5. Given that definitions of access to water vary across country contexts, the Joint Monitoring Programme measures access based on the number of people using an "improved" source of water. This measure is not limited to water piped into homes and can include a public tap, a well, and rainwater, among others.

6. The goal was 43,181 water connections. In 2011, EPSAS had made 46,566 connections. The goal for sewerage connections was 30,352. EPSAS reported making 30,352 connections (La Razón 2011).
7. External sources of financing include Inter-American Development Bank loans, Spanish Government (Cooperación Española) (MMAyA 2013a: 6), and the Corporación Andina de Fomento.
8. MMAyA includes the Vice-Ministry of Potable Water and Basic Sanitation, the Vice-Ministry of Hydraulic Resources and Irrigation, and the Vice-Ministry of Environment, Biodiversity, and Climate Change.
9. The Board of SEMAPA is now composed of two seats for the mayor's office, one seat to the governor's office, one seat for the Ministry of Water, one seat for the College of Professionals, and four seats for the citizen directors.
10. EPSAS was created in January 2007 as a state company and a not-for-profit entity. However, it is not considered fully public, as EPSAS is regulated by commercial law rather than public law, and it has two private shareholders (Spronk 2008).
11. *Diesmo* is a form of corruption that occurs when an official chooses a contract company for a project and 10 percent of the cost of the project is given to the official in an upfront bribe to secure the contract.
12. Although these dismissals were a victory for the citizen directors, the Inter-American Development Bank (IDB) cancelled payments on an \$18 million loan earmarked for modernizing the company following the corruption investigations.

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