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THE POLITICS OF WATER:

PRIVATIZING WATER AND SANITATION UTILITIES IN ARGENTINA AND CHILE

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Dissertation Abstract

Over the past thirty years, Latin America has been the site of substantial efforts to privatize urban water and sanitation services. As a consequence of these privatization experiments, the state shifted from running water utilities to a regulatory role while multinational private firms came to occupy service provider roles that had traditionally been in the public sector. In this dissertation, I compare this process in Chile and Argentina, focusing on the Santiago Metropolitan Region and Greater Buenos Aires since the late 1980s to the present. I show that in Chile, state-run water utilities achieved relatively high performance with respect to extending access to running water and sewerage connections before full-scale privatization went forward. The fact that they were high performing made them not only more attractive to private investors but also more likely to be interpreted as proof of privatization success later on. By contrast, in Argentina, where connections to running water and sewerage services were low and the waterworks system faced many problems, especially in the informal settlements and marginalized communities of Greater Buenos Aires, the experiment failed and private companies could not step in to fill gaps created by weak state capacity despite the expectations set up by the narrative of pro-market supporters. Still, the years of failed privatization inadvertently led the government to eventually pay attention to water and sanitation again, pouring funding into new public works alongside the creation of a new public sector company. I locate this narrower water and sanitation privatization story in the political and economic transformations unfolding in the two countries, considering social responses to water privatization, and showing that whereas both the efforts to deepen privatization, as in Chile, or return water to the public sector, as in

Argentina, were mainly state-led, the shifts created new ways for civil society groups to engage with the state and private multinational actors when making claims about the provision of basic services and articulating socioeconomic rights. The research is based on more than twelve months of fieldwork in Chile and Argentina to gather primary and secondary historical sources as well as to carry out sixty-five semi-structured interviews with knowledgeable respondents involved on various sides of the water privatization process, including government officials, representatives from the private sector, and activists.

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Abbreviations

AASA	Aguas Argentinas S.A. (Privatization-era utility serving Greater Buenos Aires)
AGBAR	Sociedad General de Aguas de Barcelona S.A. (Consortium member of Aguas Argentinas)
AIDIS	Asociación Interamericana de Ingeniería Sanitaria y Ambiental (Inter-American Association of Sanitary and Environmental Engineering)
APLA	Agencia de Planificación (Argentina)
AySA	Aguas y Saneamientos Argentinos (New public sector utility serving Greater Buenos Aires)
BIT	Bilateral investment treaty
CEER	Centro de Estudios de Economía de la Regulación
CGT	Confederación General del Trabajo de la República Argentina
CORFO	Corporación de Fomento de la Producción (Chile)
CTA	Central de Trabajadores de la Argentina
DGA	Dirección General de Aguas (Chile)
ECLAC	Economic Commission for Latin America and the Caribbean
EMOS	Empresa Metropolitana de Obras Sanitarias (Old public sector utility serving Santiago metropolitan region)
ERAS	Ente Regulador de Agua y Saneamiento (Current regulatory agency in Argentina)
ETOSS	Ente Tripartito de Obras y Servicios Sanitarios (Privatization-era regulatory agency in Argentina)
FARN	Fundación Ambiente y Recursos Naturales (Argentina)
FENATRAOS	Federación Nacional de Trabajadores de Obras Sanitarias (Chile)
IAM	Inversiones Aguas Metropolitanas
IBRD	International Bank for Reconstruction and Development
ICSID	International Center for Settlement of Investment Disputes
IDA	International Development Association
IMF	International Monetary Fund
ISI	Import substitution industrialization
MERCOSUR	Mercado Común del Sur (Southern Common Market)

MODATIMA	Movimiento Defensa por el Derecho al Agua y Protección del Medio Ambiente (Chile)
NAFTA	North American Free Trade Agreement
OSN	Obras Sanitarias de la Nación (Old public sector utility serving Argentina and later, Greater Buenos Aires)
PAHO	Pan American Health Organization
PSP	Private sector participation
SENDOS	Servicio Nacional de Obras Sanitarias (Chile)
SISS	Superintendencia de Servicios Sanitarios (Regulatory agency in Chile)
UNDP	United Nations Development Programme
UNIREN	Unidad de Renegociación y Análisis de Contratos de Servicios Públicos (Argentina)
WHO	World Health Organization

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PREFACE Water in the City

"…el agua potable es para las ciudades
como la sangre para el cuerpo humano…"

(potable water is for cities
like blood for the human body)

- Domingo Faustino Sarmiento, 20 September 1868,
upon inaugurating the first water supply system
in Argentina, for the city of Buenos Aires[1]

In the southern cone of South America, the Cordillera de los Andes traces a natural border between Chile and Argentina. On the Chilean side, the land stretches along the Pacific Ocean, from the arid north and the Atacama Desert, one of the driest places in the world, to the country's agricultural heartland in the center region, to the southern temperate rainforests eventually giving way to the severe beauty of Chilean Patagonia. On the Argentine side, the vast territory extends from the provinces along the cordillera eastward toward the Atlantic Ocean, crossing the fertile lands of the endless Pampas and stretching northward toward the Gran Chaco plain and southward toward the arid grasslands of Argentine Patagonia.

Along the thirty-third parallel south on the Chilean side lies the Santiago metropolitan region, with its population of just over six million people, situated in the Maipo River valley surrounded by mountains. The Maipo River begins on the western slopes of the Maipo Volcano and rushes down, passing just south of Santiago, crossing the narrow country out toward the Pacific Ocean. Santiago itself lies on a tributary of the Maipo—the Mapocho River—which also begins in the cordillera yet these days sometimes slows to a brown trickle, making it possible to walk along the riverbed, which now has to be fed by diverting water from the Maipo via the San Carlos canal. Here agricultural settlements formed along the Mapocho and the Incas clashed with

[1] Quoted in Bodenbender (1953).

local Mapuche groups long before Spanish colonization in the sixteenth century, when the conquistador Pedro de Valdivia chose the area on the river as the site of a colonial settlement.[2] Following many battles between local groups and the Spanish, Santiago would be destroyed and rebuilt, and Valdivia would eventually be executed by Lautaro and the Mapuche during an indigenous uprising against the Spanish in Araucanía, before the city would finally be reestablished as the Chilean capital following the wars for independence between 1810 and 1818.

On the thirty-fourth parallel south, on the edge of the pampas and along the massive Río de la Plata, lies the sprawling Buenos Aires metropolitan area, with its thirteen million inhabitants spread over the federal capital and municipalities adjacent to the city. The area contains the watersheds of three major rivers—the Luján, the Reconquista, and the Matanza-Riachuelo—that make their way to drain into the Río de la Plata, which also receives the flows of the Paraná and Uruguay Rivers traveling southward from Brazil to form an estuary where the river water meets salt water that eventually flows into the Atlantic Ocean.[3] Buenos Aires was founded by the Spanish explorer Pedro de Mendoza a few years before Santiago and suffered a similar fate; it was destroyed by indigenous groups before being reestablished fifty years later. By the eighteenth century, the city became a thriving port and in 1776, the new capital of the Viceroyalty of the Río de la Plata. Among the provinces, Buenos Aires moved first to cut ties with the Spanish Crown in 1810, and six years later the others declared their independence as well.

Since becoming new nations in the early nineteenth century, these lands have seen much internal and international migration and demographic change. To sustain human life and

[2] For more on water provision in Santiago during the colonial period, see Piwonka (1999).
[3] The Cuenca del Plata is the fifth largest watershed in the world, stretching over portions of Argentina, Bolivia, Brazil, Paraguay, and Uruguay. The Paraná, Paraguay, Uruguay, and Río de la Plata are the major sub-watersheds of the Cuenca del Plata (Herrero and Fernández 2008).

population growth across a diverse landscape, communities and governments have continuously sought to find ways to ensure the provision of an essential resource: water. When cities in the region were relatively small and had stable populations, people relied on taking water directly from the rivers and other bodies of water, on wells and standpipes drawing on groundwater aquifers, on reservoirs and cisterns, and on water vendors. As cities grew more dense and expanded, however, the challenge of water provision became an infrastructural one, namely building the system of pipes and pumps that would bring water for drinking, cooking, and other daily uses directly into households, and that would then take the used water, in the form of greywater and sewage, back out.[4]

Yet of course the challenge was also social, environmental, and political. How would the system to administer water provision be organized? Who would be responsible for building and maintaining water and sewerage infrastructure? Was it possible to own the water flowing through the pipes, and if so, who owned it? How would water consumption be regulated in areas where water is scarce, and according to what logic would water be distributed among different users, including commercial and industrial users? Who would guarantee access to clean drinking water? Who would pay attention to the impact of discharging dirty water—filled with sewage, and eventually, effluent from large-scale agriculture and industry—into the same water sources people were relying on for drinking, washing themselves, and irrigating crops? These questions collectively came to constitute the challenge of freshwater governance, the institutional arrangements linking society and the natural environment.

[4] Whereas I focus here on water distribution within cities based on existing surface and ground water supplies, in some cases water had to be brought to cities, which required another kind of infrastructure. In the United States, for example, the Croton Aqueduct was built to bring water from the Croton River into reservoirs in New York City. The Los Angeles Aqueduct was built to bring water from the Owens Valley to Los Angeles (e.g., Walton 1992).

The forms of social organization that initially emerged around water resources tended to be a patchwork of local arrangements. In many cases, water provision was a private enterprise in the most basic sense of the word: people who had the resources and skills set up means for regular water provision where they lived. Yet with the rise of Latin American nation-states, water flows were increasingly incorporated within the scope of public administration.[5] In urban areas, water services came to be seen as a responsibility of the state, typically administered at the level of municipalities with support from national government. Increasing population growth and the concentration of people in cities created new problems with ensuring that people had access to water for drinking and daily uses, as well as a means to dispose of waste. Public sector enterprises became central to a model in which the state was expected to play a leading role in the development and the provision of this basic social service.[6]

Water and sanitation services became central not only to fulfilling basic human needs, but also managing the risk of disease. In fact, public sector responsibility was consolidated as increasingly dense cities gave rise to public health concerns connected to waterborne diseases such as cholera.[7] Major outbreaks in North America and Europe in the 1800s had highlighted the need to manage the water flows sustaining cities, and to take preventive measures such as

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[5] During the pre-colonial era, the provision of water became part of the fabric of local social organization and daily life, and water's essential properties were reinforced by beliefs in its sacred qualities. With colonization, colonial officials took over the task of governing water resources and administering water services. For example, see Lucero and Fash (2006).

[6] Similar processes were underway in the United States and Europe (Goubert 1989). For an emphasis on infrastructures, see Graham and Simon (2001).

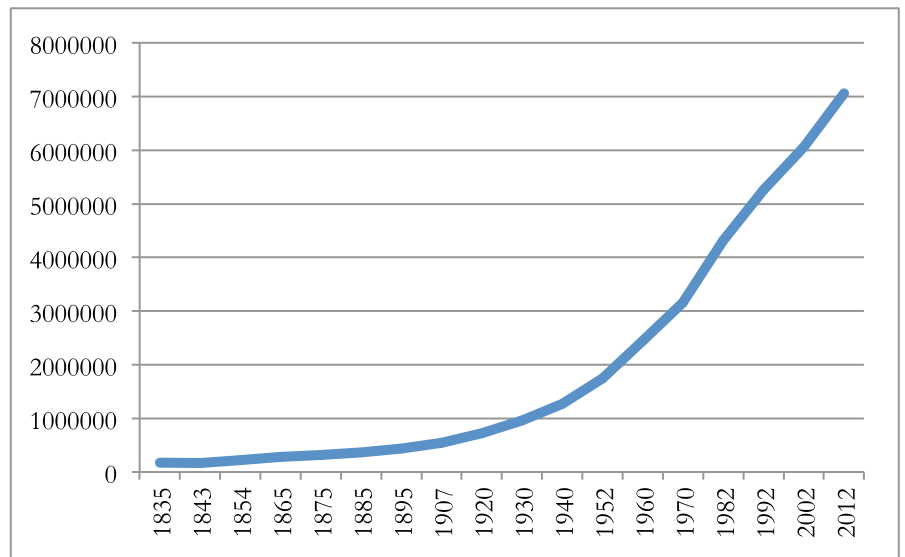
[7] For example, in Chile the first *Código Sanitario* was adopted in 1918. For early ideas on hygiene, sanitation, and public health in Chile, see biographies of doctors such as Adolfo Murillo, José Joaquín Aguirre, Alejandro del Río, Federico Puga Borne, Octavio Maira, Pedro Lautaro Ferrer and Ricardo Dávila Boza. Old fears were brought back when cholera outbreaks occurred in Peru and a dozen other Latin American countries in the early 1990s. See Idelovitch and Ringskog (1997). Also, see Ali et al. (2012).

monitoring water quality. The state thus became responsible for administering an essential resource and mitigating the risks associated with water flows.[8]

These challenges did not diminish as urbanization continued. For example, Santiago had grown substantially since Chilean independence, but during the twentieth century the population increased by more than five times in a little over sixty years, from 547,428 people recorded in the 1907 census to 3,208,553 by 1970 (see Figure 0.1). Buenos Aires grew as well. Whereas the population of the city of Buenos Aires (the *capital federal*) stabilized, growing to around 2.9 million by mid-century, people kept arriving to the Buenos Aires metropolitan area and settled in Greater Buenos Aires, where the population of the *partidos* on the edge of the city grew from 458,217 people recorded in the 1914 census to 5,380,447 by 1970 (see Figure 0.2). The issue was not only one of adding new household and commercial connections to running water and the sewerage network, but also one of scale of the whole system. Whereas at a very small scale, it had been possible to coordinate regarding water resources use and waste management, as continued to happen in rural areas, or even to have multiple companies be responsible for different sectors of the city, as in some parts of the United States, on this massive scale it became impossible to manage the potential problems and risks of water and sewage flows without water and wastewater plans for the city. Moreover, given that water and sanitation infrastructure on this scale required significant capital investment and was envisioned to remain in place for a long time, water and sanitation provision lent itself to being a natural monopoly.

[8] Whereas the construction of infrastructure and its accessibility and affordability have a class-based/inequality dimension, water as a substance, if polluted or contaminated, can affect anyone. In this sense, though theorists like Ulrich Beck (1986/1992) would later write about the risks of contemporary society, mentioning cases like climate change or nuclear fallout, water and waterborne diseases were the precursor or an odd mix of risk characteristics that were, on the one hand, unevenly distributed, but on the other hand, had the potential to affect quality of life regardless of class.

Figure 0.1 Santiago Metropolitan Area Population, 1835-2012



Source: Compiled by author based on census data, from individual-year census publications and aggregate data published in the 1930 census, the 1960 census, and the 2012 census.

Figure 0.2 Buenos Aires Metropolitan Area Population, 1869-2010

14000000
12000000
10000000
8000000
6000000
4000000
2000000
0
1869 1895 1914 1947 1960 1970 1980 1991 2001 2010

Buenos Aires (Capital Federal)
Districts of Greater Buenos Aires
Buenos Aires Metropolitan Area

Source: Compiled by author based on individual-year census publications and aggregate data published in the 1980 census for Buenos Aires Province, the 1991 census, and the 2002 census.

Outside of dense urban areas, water provision and wastewater disposal were still resolved primarily at the community level and issues related to water resources availability and distribution were still often decided among water users in a given geographic area, though the state would also become increasingly involved in water provision for agriculture and industry. These processes were all part of governing the water commons, though the state apparatus developed such that a set of organizations and policy domains arose and became differentiated around different water uses. For instance, as water and sanitation infrastructure grew and the public sector became responsible for building infrastructure, producing water and distributing it, and dealing with sewage, water and sanitation increasingly became its own sector, often disconnected from the broader issues of sharing water commons.[9] The administration of water and sanitation infrastructure and services also became routinized, and subject to the same political and economic pressures as other parts of government. As the system of producing and distributing water, and taking wastewater out, stabilized, water and sanitation came to form the

[9] There is a large literature on the commons, from Hardin's observations on the "tragedy of the commons" to the work of Elinor Ostrom and her colleagues on common-pool resource management. While this literature is important for understanding how water resources are managed, the central issue in this dissertation is somewhat different. Given the focus on the shift of water utilities from the public to the private sector, I am not strictly focusing on the degradation of the environment as a result of many people using a scarce resource. Ostrom focuses on CPRs that are "small-scale CPRs, where…the number of individuals affected varies from 50 to 15,000 persons who are heavily dependent on the CPR for economic returns," and which are primarily inshore fisheries, smaller grazing areas, groundwater basins, irrigation systems, and communal forests." They have the following characteristics: "(1) renewable rather than nonrenewable resources, (2) situations where substantial scarcity exists, rather than abundance, and (3) situations in which the users can substantially harm one another, but not situations in which participants can produce major external harm for others." So even though there are similar issues, including debates about privatizing the commons versus centralizing control in the state for the sake of conservation and good management—especially when the discussion covers the Chilean Water Code of 1981 and the transformation of water into private property—the focus on urban water and sanitation utilities in major cities raises a somewhat different subset of issues such as the provision of basic services by the state versus the private sector.

"invisible infrastructure" of cities (Melosi 2000b), especially for those who had easy and plentiful access to quality water and waste removal services.[10]

Eventually, however, the existing model of state provision began to unravel. Growing urban populations, expanding informal settlements, and industrial activities created pressures for additional investments to adequately maintain existing infrastructure, address urgent concerns to increase access to water and sanitation services, especially among the poor, and consider the impacts of water use and consumption on water resources and broader ecosystems, for instance, by building wastewater treatment plants instead of discharging used water directly back into bodies of water. Yet these pressures came on the heels of increased public spending and debt during the second half of the twentieth century, and coincided with worldwide recession in the 1970s and a foreign debt crisis throughout the region that led the 1980s to be called the "lost decade." By the 1980s in Latin America, governments were feeling the effects of the debt crisis, pressure from international financial institutions was high, spending had become viewed as problematic, and accepted wisdom about macroeconomic policy and the role of the state was being influenced by the rise of free market ideas.

Our story picks up where this major turning point away from state-led development and toward the transformation of public services takes place. This particular story centers on politics, on transformations of institutions, and on relationships among state actors, market actors, and civil society groups at various scales ranging from the neighborhood to the international levels. Yet I have included this preface to underscore that water politics is also fundamentally about the way society relates to the natural environment: the challenge of urban water provision is inextricably linked with increasing rural-to-urban migration, increasing urban population density

[10] Geographers such as Swyngedouw, Bakker, Harvey, and Castells have referred to these processes.

and sprawl, and how the ways we use water in large-scale productive activities impact its availability and quality. Whereas water provision in cities may be channeled through a system of pipes, reservoirs, and other infrastructure, and mediated by institutions, the water used for drinking water and sanitation represents just one need among many uses that include large- and small-scale agriculture, industrial uses, and power generation. Factors such as variability in climate and geographic conditions put constraints on what institutions can do. When regions face water scarcity, for instance, there is stress on all water resources and conflicts among users are exacerbated. For example, Chile has faced an extended drought in recent years, accompanied by water shortages in the north and center of the country. As Loreto Silva, then Minister of Public Works, put it, "The reality is pretty worrying…If we, as a country, do not face the challenge of creating new sources of potable water, in the end we'll have problems with the potable water supply from region VI [in the center-south of the country] northward...Therefore, these are decisions that we have to make today in infrastructure."[11] By contrast, in Greater Buenos Aires, there is plenty of water but water quality is an issue with respect to both groundwater and surface water sources, as a result of years of unregulated pollution. The urban water utilities discussed in this study are therefore nested within broader sets of conditions and environment-society relations that impact water availability, quality, use and distribution, a topic I will return to in the conclusion.

[11] Lagorio, Juan José. 2013. "Chile's water situation 'worrying,' minister says." *BNAmericas*. 17 October.

CHAPTER 1 Introduction: From State-Led Development to the Transformation of Public Services

On one hot summer day in Santiago de Chile, residents of thirteen neighborhoods woke up without running water. Aguas Andinas, the private consortium that had taken over Santiago's water provision since the 1990s, had temporarily shut down the main water distribution network following rains that had caused flooding and mudslides in the mountains bordering the city. The landslides and rushing water had affected the water quality in the Maipo River, which provides about seventy percent of the water for the Santiago metropolitan area, and the company issued a statement explaining it was forced to shut down its three main water processing plants as a preventive measure to deal with the mud and to avoid damaging their filtration systems. The company assured its customers that the situation was under control and that the water supply would be supplemented by water reservoirs and emergency wells, as well as a fleet of tanker trucks sent out to communities throughout the city.

Indeed, the trucks were sent out and the water was turned back on within twenty-four hours. Yet the incident blew up in the media and what may have otherwise been an emergency managed by utility technicians captured the attention of the Chilean public. Images of hundreds of people lining up to get water from the water trucks in the baking heat flooded the newspapers. Bottled water flew off the shelves of local supermarkets. As the daily newspaper *El Mercurio* reported, almost two million people from twenty-one neighborhoods were ultimately affected by the water shut-offs. Restaurants, day care centers, and assisted living homes reported problems with fulfilling their daily work. Residents commented on the water situation as they passed each

other in the street. The sudden absence of water had focused attention on it overnight.

Aguas Andinas officials treated the incident as part of their day-to-day operations, stressing that they had routines in place to deal with the emergency, caused by natural circumstances beyond their control. Nevertheless, for the first time in a while, people paid attention and spoke out. Critics accused Aguas Andinas of being inadequately prepared because their drive for efficiency and concern for the bottom line had led them to reduce the number of plants previously operated by the state-run company and to trim other preparatory measures to ensure continuous water provision to the capital. Santiago's mayor Juan Antonio Peribonio chimed in, issuing a statement criticizing Aguas Andinas for their handling of the situation. SISS (*Superintendencia de Servicios Sanitarios)*, the government agency responsible for regulating the water and sanitation sector, even launched a formal investigation to hold officials at Aguas Andinas accountable.[1] As one government official at SISS put it to me during an interview, "the purpose of the old public company was to provide a good service, now the purpose of the private company is to make money."[2] Meanwhile, environmental activists criticized the lack of transparency documenting the full reasons behind the shut-offs, and a theory started floating around that perhaps the mudslides had been exacerbated by the construction of the unpopular Alto Maipo hydroelectric facility by the electric company AES Gener in the upper part of the river.

Above all, it became clear that for most people, the question of whom to hold accountable and how required many feats of the imagination. Aguas Andinas is controlled by the company Inversiones Aguas Metropolitanas (IAM), which is, in turn, a subsidiary of the Spanish

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[1] Comunicado Aguas Andinas, 21 January 2013; "Adelantan reposición de agua en Santiago y aplican sumario sanitario por corte," *El Mercurio*, 22 January 2013; "Chile water shortage hits Santiago from Maipo River," *BBC News*, 22 January 2013.

[2] Interview with SISS official, Santiago, February 2013.

parent company Aguas de Barcelona (Grupo Agbar), which is, in turn, majority-owned by the French utility Suez and the Spanish holding company Caixa Corp.[3] Government officials merely wrung their hands, making statements reprimanding the company but lacking any substantial influence over their operations; even when SISS concluded its investigation and told Aguas Andinas that they would be charged almost a million dollars in penalty fees for their handling of the unplanned water shut-offs, ordinary consumers worried that the fees would simply be passed along to households in the form of rate increases or other charges.[4] Thus for a brief period, water captured the attention of many Chileans—not only residents of urban areas lacking access to quality water, farmers affected by drought, and residents outside the cities affected by water conflicts with mining or hydroelectric companies—but also Chileans who usually perceived water simply as a substance that came out of the tap in their home as long as they paid the bills. Such problems with the water supply system led to flashes of public criticism and sporadic mobilization, periodically questioning the legitimacy of the water provision model that had become well established as the new norm.

Over the last several decades, Chile became one of the countries in Latin America in which the privatization of urban water utilities went the furthest and remained firmly in place despite episodes of uncertainty, public criticism, and protest. The country was an important early site of neoliberal ideology in the 1970s, where technocrats under Augusto Pinochet's authoritarian regime carried out radical market-oriented reforms across a range of policy arenas, converting the country into a laboratory and site for the defense of free market policies following Salvador Allende's brief period in power (Fisher 2009; Gárate Chateau 2012; Silva 1993). Chile

[3] O'Leary Elisabeth and Joe Ortiz. 2008. "Suez, Criteria plan for 30 pct Agbar free float." *Reuters*. 18 January.
[4] "Aguas Andinas arriesga hasta $550 millones en multas por corte del suministro el 22 de enero." *El Mercurio*. 6 February 2013.

was among the first countries on the continent to move toward market-oriented policies in water resources management with its 1980 constitution and the 1981 Water Code, which designated water as private property and separated water ownership from the land in an attempt to create markets in water-use rights (Bauer 1998). Pinochet had made plans to privatize urban water services as well, but the plans were never completed; instead his regime passed a series of laws in the late 1980s to set the utilities on the eventual path to privatization, so a gradual process of institutional change continued within the public sector utilities until the late 1990s, when privatization finally took place. The country eventually became the paradigmatic example of free market water policies in urban water services, often mentioned among regional and international experts, when it implemented a fully privatized water supply and sanitation system at the turn of the twenty-first century in the Santiago metropolitan area and in other urban areas throughout all of its regions (Calvo and Cariola 2004). Private sector participation in water utilities throughout the country's urban areas increased from 2.7 percent in 1989 to 94.8 percent by 2005 (SISS 2012).

Meanwhile, across the border in Argentina, more than seven years had passed since the private consortium that had been running the water and sanitation system of Greater Buenos Aires had drastically reduced its operations in the country and pulled out of the concession contracts it had been planning to operate for thirty years and beyond. In Buenos Aires, the concession had lasted thirteen years and was meant to lead to both infrastructural improvements and the extension of access to water and sewerage services, especially in the poorer peripheral areas of the city. However, after multiple attempts to renegotiate the contract and the shock of the 2001 crisis, the private sector operator and the Argentine government decided to part ways,

and the concession was terminated prematurely amidst negotiations that reached the highest levels, including a personal meeting between Kirchner and Chirac. Because of a bilateral investment treaty between Argentina and France, the case ended up in international arbitration in the International Centre for Settlement of Investment Disputes (ICSID).

Though the Buenos Aires concession was the most visible and central one, few of the attempted concessions in the rest of the country fared better. Municipal and provincial governments went along with private sector participation in twelve of the country's twenty-three provinces.[5] Almost all were granted as concession contracts. However, in half of these cases, the contracts were canceled before the term of the concession was up: major contracts were prematurely canceled in Tucumán province, Mendoza province, Salta province, Buenos Aires province, Catamarca province, and Santa Fe province. As of 2014, only one major concession, in Córdoba province, which serves approximately 1.2-1.5 million people, was still in place and generating substantial controversy.[6] Argentina thus became the site of a major private sector concession and sister concessions in the provinces that were meant to influence the experience of future privatization experiments in settings with low performance indicators and infrastructure problems, but which instead resulted in the near collapse of the privatization model and the widespread return of public water utilities. How did the two countries become the sites of such extensive water privatization experiments and how did they attempt to transform existing institutions in the water and sanitation sector? Why is it that the process of implementing water

[5] Municipal or provincial governments attempted private sector participation in the water and sanitation sector in the Buenos Aires, Corrientes, Catamarca, Cordoba, Formosa, La Rioja, Mendoza, Misiones, Salta, Santa Fe, Santiago del Estero, and Tucuman provinces. The remaining provinces are central southern provinces (La Pampa, Neuquén, Río Negro, Chubut, Santa Cruz, Tierra del Fuego), northern provinces (Jujuy, Chaco), eastern provinces (Entre Ríos), and western provinces (San Juan, San Luis).

[6] The remaining concessions are all smaller, located in the north of the country, with Corrientes, Santiago del Estero, Misiones, and Formosa provinces at the larger end and with five additional utilities serving concession areas with less than 100,000 connections.

privatization led to such different trajectories and outcomes in Chile and Argentina, despite expectations by some of increased efficiency, access, and investment, and expectations by others of widespread social protest?

Remaking Water Services: Economic Liberalization, Democratization, and State-Society Relations

Many scholars have written about the rise of free market politics worldwide in the late twentieth century, as country after country adopted policies emphasizing privatization, the liberalization of trade and financial capital flows, and deregulation, turning toward liberal market principles to shape not only macroeconomic conditions in the pursuit of economic growth, but also social policies (Campbell and Pedersen 2001; Centeno and Cohen 2012; Dobbin, Simmons and Garrett 2007; Fourcade and Babb 2002; Prasad 2006). A number of studies consider how local institutions and patterns of state-society relations in particular countries and regions interacted with the pressures of economic and financial globalization (Biglaiser 2002; Fourcade and Babb 2002; Murillo 2009; Murillo and Martínez-Gallardo 2007; Prasad 2006; Teichman 2001). Scholars of globalization and development have also analyzed the development and spread of these "Washington Consensus" policies abroad, the role of international financial organizations in economic globalization and the diffusion of particular policy models, and the developments within transnational capital that went hand in hand with the opening of national borders to foreign investment, international trade, and international expertise (Babb 2009; Sklair 2000; Stiglitz 2002).

As we will see, Chile and Argentina adopted water privatization policies earlier relative

to other countries in the region, yet they were harbingers of a broader trend. At the end of the twentieth century, a major global shift was under way with respect to the provision of water and sanitation services: private companies began to actively invest in water and sanitation services around the world. According to one estimate, between 1990 and 2014, more than nine hundred utility projects amounting to a total of more than $78 billion US dollars were undertaken by private companies in sixty-four countries, with the majority of investment occurring in Latin America and the Caribbean, followed by East Asian countries (World Bank 2015). Typically, companies bid on projects and received concession contracts, which committed them to maintaining, operating, and investing in water and sanitation utilities for thirty- or forty-year periods, often at guaranteed rates of return. Others sought management and lease contracts, "greenfield" projects, and even transfers of utilities through divestiture.

Private participation in the water supply had been happening since the first municipal water and sanitation systems were set up (Juuti, Katko and Vuorinen 2007; Melosi 2000b), yet this particular form of private sector participation was different: in many cases, multinational corporations and large business conglomerates were taking over essential public services outside of their countries of origin,[7] and a global market in environmental services was emerging, as international organizations and a series of bilateral and multilateral trade agreements facilitated and legitimated the shift. As part of this pattern, there was a substantial rise in experiments

[7] The top five companies involved are the French multinational Suez; their competitor, Veolia Environnement, also French; their competitor, Saur, also French; the Spanish corporation Aguas de Barcelona; and the British corporation Thames Water. According to Blanc and Botton (2010), "In 2001, five major operators shared 80% of the PPP contracts signed in the water sector of developing countries: 36% for Suez, 15% for Saur, 12% for Veolia, 11% for Aguas de Barcelona, and 6% for Thames Water (Marin 2009). These contracts represented over 100 million users in 2001, against barely 10 million in 1991" (12).

involving the private sector in running the water and sewerage systems of many Latin American cities.[8]

Many of these private sector companies were, in fact, consortia composed of both local investors and larger multinational environmental services firms based in countries like France, England, and Spain, where they had already acquired experience with operating water and sanitation utilities in their home countries and abroad. For instance, French companies had run utilities alongside municipal governments for decades. In Britain, privatization had taken place relatively recently: as Bakker shows, building on the historical work of scholars like Ernst (1994), extensive water privatization in England and Wales took place in the late 1980s, when the water supply system was transformed from a subsidized service provided by the state to its citizens, to a commodity supplied by private companies to customers, with private monopolies operating at the level of river basins (Bakker 2003). Many of these companies had tremendous economic power given the resources at their disposal; for example, in the late 1990s, Suez, one of the top multinational companies working in the water and sanitation sector, had the capacity to invest more than $7.73 billion a year from self-generated earnings alone.[9] As the privatization paradigm took hold and as they expanded to new markets in Latin America, multinational private sector companies thus came to have a substantial role in the processes of water production and distribution, as well as wastewater collection and treatment. Simultaneously, they found themselves occupying service provider roles of basic services and taking on such roles in cities where access to water and sanitation was still low, especially among the poor. Meanwhile, the

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[8] The region, where governments undertook a series of transformative market-oriented reforms after a long period of active state involvement in the economy, became the site of some of the first major attempts to privatize water services in the global South. Between 1990 and 2004, private investment in the water and wastewater sector in Latin America accounted for approximately half of all private investment in the sector worldwide (Gleick et al. 2011).

[9] Tait, Nikki and Samer Iskandar. "Europeans Tap into the US Water Utilities." *Financial Times* [London, England] 2 July 1999: 23.

state gave up its responsibilities to invest in infrastructure and to produce and distribute water, instead moving toward primarily a regulatory role. In other words, rather than producing the water, distributing it, charging for it, maintaining the infrastructure, and financing social programs such as subsidies for users who could not pay, the state would set up a regulatory agency that would monitor and oversee the provision of water and sanitation services by a private company.

Throughout Latin America, these economic liberalization and privatization experiments coincided with tumultuous political periods, including authoritarian regimes that gave way to democratic transition and democratic consolidation (Mainwaring 1992). In Argentina and Chile, for example, people gained the opportunity to participate in their polity, through elections and attempting to voice their concerns to government, as well as by participating in groups in a more relaxed civil society environment, following authoritarian periods during which the public sector had already begun a period of radical transformation. As democratic regimes returned, people were confronted with a new scenario: a state that was no longer authoritarian and ostensibly newly democratic, but also profoundly shaped by regional and international experts, international financial institutions, and a limited range of policy options that had already moved or were rapidly moving away from the developmentalist welfare states of earlier years. Moreover, changes such as widespread privatization introduced the presence of new actors, including major private firms from abroad, in roles that had been traditionally fulfilled at the local level or by state organizations.

This shift from a developmental welfare state and entrepreneurial state toward a more minimalist regulatory state model was taking place not only in the water and sanitation sector,

but also in other areas such as electricity, gas, oil, telecommunications, railroads, airplanes, and other industries. Under the new model, the state would reconfigure itself and pull back from carrying out certain activities, including those associated with investment in infrastructure and the provision of basic services, and instead would structure and monitor how other organizations took over and carried out these activities instead. New principles such as "full cost recovery" were promoted as the new norm. Concepts like "efficiency" became applied to water and sanitation, to be balanced with principles like social equity.[10] The paradigm shift regarding the accepted role of the state became so pervasive that the logic of cutting back the public sector overrode substantive issues about the content of the work being undertaken by a given public sector enterprise. The focus was on shifting the rules and practices—the institutional arrangements—and the changes were sweeping across many different sectors working with different kinds of infrastructures and resources. Still, there was initially a certain wariness of ceding control over water and sanitation infrastructure, and in a few radical cases, rights over water itself; in policymakers' decision-making processes, water was typically not the first to go.

Within governments and in policy networks spanning national borders, the rise of economic expertise and technocratic forms of public administration were part of this process of economic liberalization, as they facilitated the diffusion of particular economic ideas, articulated policies with local contexts, and built up the practical knowledge to implement them. Fourcade, for example, has written on economics as an "agent of globalization" through the lens of the internationalization of professional expertise (Fourcade 2006). Meanwhile, Kogut and Macpherson (2008) show how the presence of an epistemic community of US-trained

[10] For example, in the English and Welsh case, Bakker (2003) writes that prior to privatization, "water pricing was based on a concept of 'social equity': household supply was not metered, and bills were linked to property value, supported through cross-subsidies between consumers, and in some instances between regions and level of governments" (5).

economists influenced the adoption of privatization policies abroad. The economics profession was so central to the rise of the market paradigm and the transformation of Latin American states that a body of work emerged on this topic. A set of scholars delve into historical data to understand how economic expertise became prominent in particular countries (Montecinos and Markoff 2009), as Valdes (1995) does in his study of the "Chicago Boys," Montecinos (1998) does in her study of the increasing influence of economists in Chilean governments from the 1950s to the 1990s, and Babb (2004) does in her study of shifting ideas within the economics profession in Mexico. Such studies connect with work on the power of technocrats within Latin American governments (Centeno 1994). This broader story was echoed in the case of privatizing public sector enterprises: privatization introduced a bigger role for economists in government to design and evaluate rate structures, investment plans, and utility financing, one that put them on par with other professions, such as civil engineers, that were historically central in the water and sanitation sector.

Pro-market policies were often continued or deepened during democratic transition, including by political parties that had historically been considered in the center-left spectrum. Alongside actors that would typically engage in more routine politics, sometimes the pro-market changes led to social protest, as publics and organized civil society groups responded to shifting economic and social policies that impacted their quality of life, and as the roles of states and markets in social policy came to form the substance of political debate and conflict. Protests against austerity and internationally prescribed policies aimed at domestic market reforms to reduce foreign debt broke out in country after country, predominantly in cities (Walton and Shefner 1994). As a wave of free market policies and austerity measures associated with

structural adjustment programs washed over the region, many unions and popular movement groups engaged in defensive collective action (Tilly 1978).

From the *piquetero* movement of unemployed workers setting up roadblocks in Argentina, to one hundred thousand Costa Ricans marching to protest the privatization of the state-run telecommunications and electricity sectors, to Peruvians rioting when plans to privatize electricity were announced—groups engaged in collective action because they viewed neoliberal reforms "as an economic threat and an erosion of their citizenship rights" (Almeida 2007, 123-4). Akin to the Polanyan notion of a counter-movement emerging in response to the expansion of the market (Polanyi 1944), these movements not only engaged in episodes of contention but also in reformist mobilization that sometimes led to the ouster of existing governments and the rise of leftist politics (Silva 2009; Stokes 2009). In this sense, water utility privatization throughout region occurred at the intersection of these dual processes of economic liberalization and democratization.

As time went on and it became to possible to watch policy adoption turn into policy implementation, many kinds of privatization involving large infrastructures such as electricity and telecommunications remained in the private sector, yet attempts to privatize water tended to be wild cards. Outcomes appeared all along the spectrum, from reorganizing existing institutional arrangements to such an extent that the treatment of the water supply and water services became completely reimagined, to short-lived attempts that resulted in widespread contention and explosive social protest. For example, scholars examined what became the referential case of water privatization in Latin America: Bolivia. In this case, following the decision to privatize water in the Cochabamba Valley and transfer the water supply system to the

US company Bechtel, a social movement coalition for the defense of water emerged and thousands of people came out into the streets to protest and riot in response to the changes, leading the concession to be canceled (Nickson and Vargas 2002; Simmons 2012; Spronk 2007). Bolivia was not alone. Yet despite the emergence of multiple instances of protest across the region around the rallying cry "water is life!", people did not always mobilize quickly and forcefully and there was much variation across settings. Not all cases throughout the region followed this trajectory; the privatization of urban water utilities did not consistently trigger social mobilization and even when it did, that mobilization did not always affect the privatization outcome.

In other words, the expansion of the market mechanism did not necessarily mean that people spontaneously defended a stronger state, especially following experiences of authoritarianism. Logically, the key actors that would rally for the defense of the public sector would be public sector unions, and even then, this was not always easy because the dictatorships had undermined the overall strength of unions, and union interests were not always stable. As for other associations and the public, at the outset there was little principled opposition to privatization, in defense of the state, and in the defense of state-owned infrastructure. Particular water grievances—such as around access to water in terms of physical connections and affordability, the quality of water, or the ability to determine how to use water resources—had to be articulated with broader struggles around inequality, identity, and socioeconomic and cultural rights in order to gain traction as political issues.

Water Utility Privatization and Pathways of Institutional Change

In this dissertation, I examine this attempted and incomplete transformation of the role that had been established for the state and the public sector in water and sanitation during the twentieth century. I approach this recent history of water politics in the region by following three major lines of inquiry. First, I examine why and how ideas about water provision shifted in the last several decades of the twentieth century among policymakers. Second, I look at how such ideas were implemented in an effort to transform existing institutions related to water and sanitation, and the outcomes of those privatization efforts. Finally, I consider the social consequences these privatizations had. I study two major cases—Santiago, Chile and Buenos Aires, Argentina—where water privatization was attempted with very different outcomes. Using these in-depth case studies, I trace how water politics were mapped on to broader debates about states and markets in the context of the rise and decline of the neoliberal paradigm in the region, and how they became connected with state-society relationships and social mobilization in historical contexts that were characterized not only by water conflicts, but also broader historical processes such as dictatorship and democratization. In other words, I analyze water politics as well as locating water politics in longer-term processes of social change.

This project is motivated by the broader question: how do local political and economic institutional contexts mediate the introduction and implementation of a dominant global policy paradigm? Existing scholarship has demonstrated the influence of processes occurring at different levels. As Henisz, Zelner and Guillén (2005) show, for example, loan conditions imposed by the World Bank and International Monetary Fund (IMF) impacted the likelihood of privatization of state-owned firms in the electricity and telecommunications industries in a

sample of seventy-one countries, demonstrating the power of coercive pressure coming from international lending institutions for the adoption of market-oriented policies. Yet of course, convergence was not the whole story. For example, Murillo (2009) also considers policy adoption of privatization in the electricity and telecommunications industries in Latin America—focusing on Argentina, Chile, and Mexico—but takes a different approach, arguing that despite external financial pressures, national conditions and especially electoral competition and partisan linkages were crucial for understanding the timing and content of policy changes made to public utilities across different country contexts. Whereas financial pressures were consequential, especially when electoral competition was low, the party orientation of policymakers affected how the regulatory policies accompanying pro-market reforms were designed (for example, whether they were "market conforming" or "market controlling") and how post-reform policies were conceptualized—the national politics of public utilities also mattered.

Through my analysis, I aim to uncover how processes of institutional change unfolded around the organization and status of water as a public service. Despite external pressures and the importance of international coercive and normative factors driving the diffusion of water privatization, to understand why water privatization experiments unfolded contrary to expectations requires us to look at historical institutional legacies and existing patterns of state-society-market relations in the countries under study. State actors, civil society groups, and market actors at different scales—organizational, urban, national, and international—shape water politics and the social and environmental policies that water provision encompasses.

My approach is historical and process-oriented: I aim to understand how different initial conditions, including the form and context of policy adoption, led to distinct sequences of events

that led to variable outcomes, looking at the interaction between global, national, and subnational factors. In tracing the implementation process, I also begin to consider how the introduction of the paradigm in turn affected local institutions in an effort to understand the features of the contemporary developmental state in Latin America. My historical analysis is grounded in a series of empirical questions:

- How did ideas about extending market logic to water utilities become so prevalent, and how did policymakers become convinced to involve the private sector in water and sanitation?
- As privatization took place across different sectors, did policymakers treat water utilities like any other state-owned enterprise, and how did they justify the extension of market logic to this essential substance? Under what conditions did the privatization policies become durable, and when were they rejected?
- Under what conditions did water lead to the emergence of broad alliances for its defense, and when did alliances around water remain narrow or fail to provoke social response? To what extent do such alliances and their actions matter for the institutionalization of privatized models of service provision in water and sanitation? Did privatization itself have an impact on the way civil society groups do politics?

The Cases: Comparing Chile and Argentina

This study compares water privatization in Chile and Argentina. Within the two countries, I closely analyze the largest concession in the major urban metropolitan area in each country: the

transformation of the Empresa Metropolitana de Obras Sanitarias (EMOS) into Aguas Andinas in the Santiago metropolitan region and the transformation of Obras Sanitarias de la Nación (OSN) into Aguas Argentinas in Greater Buenos Aires, contextualized with respect to the privatization of other urban water utilities in each country. I do this both as a way to make the analysis of institutional transformation more detailed and manageable, and because privatizing water and sanitation serving the capital city was a highly visible political decision that had an impact on other parts of the country, and was also typically the most challenging in terms of infrastructure.

In Table 1.1, I summarize the features of the two sites. In addition to the institutional and political features of the cases, it is important to note a key distinction with respect to the natural environment. Pressures on the water and wastewater system originate not only in the deterioration of the infrastructure, population growth, runoff from industry, and so on, but also the availability and distribution of water resources. In a place like Buenos Aires, there are adequate water resources, but the infrastructure is lacking to connect households to the water system, especially households in the periphery. In Santiago, recurring water scarcity problems place additional strain on the water supply and water management; over the past several years, the center and north of the country have suffered severe drought.

Table 1.1 Comparing the Cases: Water and Sanitation Privatization in Santiago and Buenos Aires

	Santiago, Chile	Buenos Aires, Argentina
Initial proposal	1995 national proposal to privatize water services	1991-1992 national proposal to privatize water services
Creation of new company	1999 sale of public utility EMOS and creation of Aguas Andinas	1993 sale of public utility OSN and creation of Aguas Argentinas
Largest shareholders in consortium	Suez (France) Agbar (Spain)	Suez (France) Agbar (Spain)
State role	Regulatory agency (SISS) set up in 1990	Regulatory agency (ETOSS) set up in 1992
Civil society response	Mobilization by unions (short-term) Broad-based movement about water resources (long-term)	Mobilization by neighborhood groups, environmentalists, and consumer associations (fragmented)
Outcome	Indefinite concession with private sector consortium remains in place	Private concession contract rescinded in 2006; new public sector company (AySA) set up

Virtually the same set of multinational private firms would lead the effort in both countries considered in this study; the French company Suez was the majority shareholder in both Santiago and Buenos Aires. The regulatory arrangements that were envisioned, modeled on the British case, were also similar. However, the two cases proceeded along quite different paths. In Chile, EMOS and other urban water utilities were gradually transformed while they were still in the public sector; the state made investments to maintain and extend water supply and sewerage infrastructure, and utility managers introduced principles such as the goal of self-financing of utilities into the rate setting process early on. A regulatory agency and a subsidy scheme were set up early on as well. Once relatively high performance indicators had already been achieved on all but wastewater treatment plants and the utilities were generating revenue, the wave of privatization began, ending in the somewhat surprising sale and transfer of EMOS and other utilities to the private sector.

By contrast, Argentina's system privatized from a position of weakness rather than strength. The changes moved forward rapidly after decades of underinvestment in water and sanitation, which was felt especially in the southern and western neighborhoods of Greater Buenos Aires, above all in peripheral areas on the edges of the city and the *villas* where access to water and sewerage services was lacking. Although much effort was put into making the design of the concession contract appealing to foreign investors, the new model of water service provision proved to be ill-suited for implementing the changes necessary to improve the conditions of the water and sanitation network. Furthermore, whereas the government prioritized the promise of low rates for water services when evaluating bids for the concession, aware that a significant proportion of current and future users were living in poverty, the company that won the bid would soon begin to change their financial projections and unplanned revisions to the water rates began to plague the implementation of the contract within a year of the start date.

The macroeconomic context was also complex. Whereas Chile had experienced hyperinflation during the mid-1970s, Argentina suffered one of its worst hyperinflationary periods in the late 1980s during the democratic transition, reaching an average annual rate of change of 750 percent in the consumer price index by 1989, which would lead the country to set up a currency board and peg the peso to the dollar. While Chile's privatization was driven and justified in part by the decision to seek more integration into global trade, Argentina was under immense international economic stress and on the brink of default from transnational financial obligations, leading the government to declare a state of emergency and to begin to privatize many public sector enterprises simultaneously and with little preparation, in the case of water and sanitation, setting up regulatory agencies at the same time that concessions were being

granted. The privatization of water and sanitation therefore took place at this moment of crisis, as dozens of state-owned enterprises were transferred out of the public sector or liquidated, with the convertibility plan in place and additional mechanisms such as bilateral investment treaties introduced to protect foreign investors. In 2001-2002, the country would face financial crisis again, accompanied by falling standards of living, mass social protest and the government's loss of political legitimacy, which would heighten existing problems with the concession and lead it to a breaking point.

The policy discourse, the work of expertise, and the involvement of consumers and civil society groups were also quite different in the two cases. Whereas multilateral lenders like the World Bank and the Inter-American Development Bank provided loans to the water and sanitation sector in both countries, World Bank consultants and representatives of international financial organizations were more directly involved in Argentina and in setting up the Buenos Aires concession; they were involved even in developing the bidding documents. Unions were also involved in the discussion and ultimately went along with the privatization, at least in its early years. At the same time, consumers, neighborhood associations, environmental justice activists, and other civil society groups expressed grievances throughout the process, both within the institutional spaces created by the regulatory agency and other state organizations such as the ombudsman's office, and through instances of targeted mobilization such as small demonstrations outside the offices of Aguas Argentinas, non-payment campaigns, roadblocks, and general demands for expanded access to water and sanitation services in their neighborhoods, made to the state and the private sector. These demands only intensified during the crisis as massive social protests broke out in the capital and throughout the country in response to

austerity measures and the economic policies of the 1990s.

In Chile, by contrast, privatization and other market-oriented ideas had been incorporated into the fabric of the state earlier as a result of the lineage of the "Chicago Boys" under Pinochet, ideas that gradually continued to permeate and extend across areas of Chilean policy and to guide policymakers during the democratic transition. There, unions had mobilized about the privatization of utilities with little support from consumers and other civil society groups until a broader movement critiquing Pinochet's institutional legacy and the commodification of water resources emerged years later. Major national business conglomerates such as the Grupo Luksic, Grupo Bethia, and the Grupo Hurtado Vicuña also became involved in the sector.

In Greater Buenos Aires, as in many other parts of Argentina, the concession contract of the privatized utility was ultimately rescinded and the case went to court and into international arbitration. The failure of the concession meant not only that the private company withdrew from its role in providing water and sanitation services, but also that the entire model—whereby the private sector operated the utility and invested in the expansion of infrastructure and quality of services while the state took a back seat as regulator—was thrown in flux and had to be replaced. President Néstor Kirchner's government stepped in and created a new public sector company for Greater Buenos Aires, Aguas y Saneamiento Argentinos (AySA), which began to actively expand the water and sanitation network with a clear emphasis on addressing inequality in water and sanitation access, under the banner of "agua para todos" (water for all) and often using the language of the right to water, contrasting its priorities to those of the privatization era, with occasionally populist undertones. The utility introduced a program called "agua más trabajo" (water plus work), whereby worker cooperatives could be formed, trained, and contracted to

construct part of the water and sanitation infrastructure in neighborhoods that lacked connections, providing temporary employment and job skills along with increased access. The privatization quickly became a contentious episode which many of those involved, on both sides, would recall with much emotion and strong opinions, and which, along with many other water privatization failures, would lead the World Bank and other international organizations to scale back their promotion of the privatization paradigm and particular recommendations such as full cost recovery. At the same time, the failed privatization experiment had the unexpected effect of focusing government attention on improving water and sanitation services in a way that had not happened in Argentina in decades—which, coupled with post-crisis economic recovery under the Kirchners—led to a new wave of public sector investment and improvements to the water and sewerage system.

With respect to mobilization, Chile and Argentina did not quite conform to the anticipated narrative, neither with respect to austerity protests associated with privatization nor to a clearly defined narrative around the meanings associated with water. For example, in an analysis of protest campaigns between 1995 and 2001 throughout Latin America, Almeida (2007) found that working-class unions and public sector employees were the main protest participants, followed by students, peasants, teachers, consumer protection NGOs and community-based groups, indigenous and ethnic-based groups, the unemployed, middle-class groups, church-based groups, environmental groups, and women's organizations (128-9). In other words, defensive collection action in response to austerity measures tended to be union-led and often involved cross-class coalitions drawing on diverse social movement groups. These expectations were echoed by theories about social movement unionism and power resources

theory, which are often based on cases from the global North.[11]

Yet in both countries, there was variation with respect to accepted wisdom. In Chile, while these types of actors eventually became involved in the debate about water commodification, earlier instances of mobilization by unions in response to water utility privatization failed to take off and to generate a broad-based alliance, tempering the expectation that mobilization around the political claim that "water is life" was as immediate and powerful as the case of the Bolivian water wars would lead us to believe. Only recently did groups start developing a common frame around the defense of water and articulating what an emerging human right to water may mean in Chile, and even then, the mobilization has been about the double commodification of water (water services and water resources) and not about the transfer of urban water utilities to the private sector per se. This gradual loss of legitimacy of water governance institutions has been a consequence of both their technical shortcomings and an emerging critique of Pinochet's institutional legacy, a critique that has come about after much interpretive work by movement groups around the country that went into understanding water-related conflicts and their interconnectedness, and one that has been influenced by the presence of highly visible movements such as the student movement criticizing the consequences of the same institutional legacy for education.

[11] A series of important compilations have analyzed the recent wave of social movements throughout Latin America, including movements that have involved struggles over identity, linking the cultural and political (Alvarez, Dagnino, and Escobar 1998). Yet mobilization around water has not appeared in many of the case studies considered in such volumes, perhaps in part because it is difficult to categorize. On the hand, it often involves "old" social movement actors like unions, though often in a weakened, fragmented, or changing capacity, as well as "new" movement actors like environmentalists. At the same time, water seems like the classic case of "grievance" that may not seem as interesting as more recent cases (studies of "urban popular movements" may be an exception, e.g., Castells (1983) on political demands origination in collective consumption and tied to self-determination, Bennett (1992)), one that can be expressed by people at the neighborhood level, people who may be having trouble paying the bills but do not necessarily mobilize out of an explicitly articulated political strategy, but rather because they want something: water, or a sewerage connection so their basement does not overflow with human excrement when there is flooding.

In Argentina, I show that in the absence of serious union resistance to privatization, new civil society and social movement actors emerged in an attempt to grapple with and respond to the policies of the 1990s. Attempts to deal with human rights simultaneously with free market reforms with little opposition from traditional actors such as unions gave rise to a more judicialized, legalistic, rights-based form of consumer and neighborhood protest that would eventually connect with other grievances related to the economic transformations of the nineties that led to widespread street protests once the 2001-2002 crisis hit. As opposed to being purely class-based or identity-based, these social actors mobilized as consumers and supporters of consumer groups, as individuals, and as members of neighborhood associations. Consumer groups temporarily absorbed some of the conflict around privatization and channeled it into new state spaces like the regulatory agencies and the ombudsman's office, while in areas where services were lacking, protest still broke out. A broader alliance against water privatization and drawing on broader opposition to the economic policies of the nineties emerged following the 2001-2002 crisis, which unleashed such strong protests and powerful social mobilization, especially by movements of the unemployed, which led to the grievances that had been channeled and contained to spill out onto the streets. In a way, then, the story about water wars has also been about how "old" civil society and social movement actors such as public sector unions and other civil society and social movement actors have come together to form alliances around issues of access and the defense of water, and the challenges of constructing such alliances.

In sum, I show that contrary to expectations such as increased efficiency, access, and investment following privatization, neither privatization process played out as anticipated. In the

Santiago metropolitan area, water and sanitation utilities were reformed gradually and became high performing when they were still in the public sector, making the privatization "work" when there was little to solve. By contrast, in the Buenos Aires metropolitan area, where coverage and investment in the sector were low, privatization did not fill the gap created by weak state capacity; nevertheless, failed privatization eventually had the unexpected effect of catalyzing the public sector to perform better, and once the utility was returned to the public sector, the new state-run utility was actively expanding coverage and investing in new infrastructure in an effort to demonstrate the state's commitment to improved social services and socio-environmental policies.

In both cases, I show how the arrival of market-oriented policies in the region coincided with a period during which state-society relations were on unsteady ground. Both Argentina and Chile had emerged from years of brutal dictatorship and were rebuilding civil society spaces as civil society organizations found ways of expressing demands in transitional democracies and sought to reestablish modes of relating to the state and each other. Whereas the Bolivian "water wars" shaped the public and intellectual imagination about what happens when water becomes privatized, here I complicate that view by examining instances of contentious politics around water in Argentina and Chile, both countries that also attempted privatization on a large scale and had distinct civil society groups that took ownership of the water issue and responded, albeit with much less influence on privatization outcomes than mobilization had in Bolivia. I write about the emergence and development of a movement around water politics in Chile, showing that whereas water utility privatization failed to generate a broad-based movement, a movement around the defense of water resources defined more broadly, coupled with a critique of

Pinochet's institutional legacy did eventually emerge. I discuss mobilization around water in Buenos Aires and other parts of Argentina, showing that the majority of mobilization has been fragmented and has either focused on particular aspects of utility privatization, access to water and sewerage services, or broader water resources issues like pollution.

Data Sources and Methodology

This dissertation is based on a qualitative approach, relying on evidence from primary and secondary historical sources complemented by semi-structured interviews with key respondents. In the majority of cases, the respondents were individuals who participated in the privatization process in some capacity, those who mobilized against it, and local experts. I spent more than six months in each country to collect data, conduct interviews, and attend relevant events, such as public forums, protests, planning meetings hosted by civil society groups, and seminars related to water policies held by local universities and non-governmental organizations.

To collect primary and secondary historical sources in Chile and Argentina, I consulted the archives of government agencies, the national library collections, university libraries, and documents produced by social movement groups and non-governmental organizations (NGOs), as well as additional documents given to me by interviewees. Upon returning from fieldwork, I also visited the World Bank Archives in Washington, DC. The historical sources form the center of my analysis, whereas the supplementary interview and ethnographic work helped me to understand the processes I was reading about and to better interpret what happened. Collectively, this body of data facilitates an analytic narrative strategy emphasizing processual explanation (Abbott 1992; Abbott 2001; Abbott 2014; George and Bennett 2005), whereby I use primary and

secondary sources to construct a narrative and analyze the processes of privatization in the two countries. Approaching documentary sources critically rather than as accurate snapshots of complex events (Schneiberg and Clemens 2006), I use the range of collected data to gain leverage on the ambiguous moments of the process. I discuss my sources in greater depth below.

For the international dimension, I relied on internal and external documents produced by the World Bank, the Pan American Health Organization and World Health Organization, and other UN organizations that have been extensively involved in water supply lending and technical assistance, including their resolutions, loan agreements, conference proceedings, project reports and evaluations. Some of these documents are available in print and online collections that have been declassified and made public, whereas others I was able to access by making a formal request and visiting the World Bank Archives once the request was granted. I also consulted secondary sources on the history of these organizations. I also accessed documents produced by ICSID for the arbitration proceedings. Finally, I looked at documents produced by particular epistemic networks in the region, such as the Inter-American Association of Sanitary Engineering, and visited the library of the Economic Commission for Latin America and the Caribbean (CEPAL/ECLAC) to consult workshop proceedings, reports, and other materials related to regional activities in the water and sanitation sector.

For the Chilean case, I collected documents produced by the Superintendencia de Servicios Sanitarios (SISS), the regulatory agency for the water and sanitation sector; the General Water Directorate (Dirección General de Aguas); the Ministry of Public Works; the Ministry of the Environment; and other government agencies producing work relevant to water utilities and water resources (e.g., Congressional commissions, and special commissions formed

under the dictatorship; local newspapers and specialized journals on water, law, engineering, and irrigation). I consulted newspaper articles in the collections of the National Library and online from *El Mercurio*, the national daily newspaper that was widely considered the mouthpiece of the dictatorship during the Pinochet era and is still considered rather conservative because of its ownership by the Edwards Group, as well as alternative news sources such as *El Ciudadano, El Mostrador*, and local newspapers. In some cases, my interviewees provided me with documents; for example, Raquel Alfaro, the former head of Santiago's public utility EMOS, showed me photos and allowed me to copy her collection of personal papers and memos from the period. The same happened with several activist leaders I interviewed. Materials produced by Chile Sustentable, OLCA, the Observatorio Ciudadano, and FENATRAOS, which all produced their own documentation and studies of water politics contributed to my understanding of water-related, union, and environmental activism, as did the files and archived newspaper clippings of Juan Pablo Orrego from Ecosistemas. The Chilean National Library of Congress in Valparaíso was also helpful, since they provided access to materials on the congressional debates and speeches leading up to the passage of particular laws.

For the case of Argentina, I collected documents produced by ETOSS (archived at ERAS, the successor to ETOSS), the regulatory agency for the water and sanitation sector, which I was able to obtain through a special request that was approved by the agency; historical documents at the water library now housed at AySA (though many more contemporary documents were unavailable through them because the case between Argentina and Aguas Argentinas was still in arbitration proceedings so all files related to the privatization were restricted); AySA reports; and documents produced by the ombudsman's office, the Defensoría del Pueblo de la Nación. I also

collected newspaper clippings from *La Nación, Clarín,* and *Página 12*. In some cases, interviewees gave me additional documents. For example, Victor Frites, from the Foro Hídrico de Lomas de Zamora, provided me with additional information, as did the Fundación Ambiente y Recursos Naturales (FARN). For historical background on the sector during the 1940s-1960s, I consulted the bulletin of the OSN, the *Revista de Obras Sanitarias de la Nación,* and the monthly *Boletín de la Administración Nacional del Agua* (Ministerio de Obras Públicas).

The historical work is complemented by more than sixty semi-structured interviews with knowledgeable respondents that include current and former government officials, representatives of NGOs and social movement groups, members of water user associations, the private sector, and academia. For the interviews, I used both targeted and snowball sampling, in the sense that I both sought out particular individuals for oral history accounts of events I was reading about in archival and secondary documents, and also asked them whether there were additional individuals I could speak with. I also attended relevant events in both countries. For example, in Chile, I regularly attended meetings of the coordinating committee that had formed to bring together civil society groups mobilizing around water politics and attended several major protests held around the topic of water. In Argentina, I also went to neighborhood gatherings around water and sanitation issues.

Santiago and Buenos Aires represent two contrasting pathways of privatization. Whereas in the former case, the privatization became part of lasting institutional arrangements, in the latter case, the privatization experiment lasted thirteen years before being ended early in the midst of conflict. Two cases are certainly not enough to make causal claims, but case studies are valuable for generating ideas about pathways and mechanisms that lead to particular outcomes.

From a simplified perspective, these sites also had shared characteristics that made them particularly amenable to comparison. For example, they both had relatively large cities with peri-urban populations, a history of violent dictatorship and democratic transition, and experiences with hyperinflation.

In Tables 1.2-1.5 below, I summarize important features of the cases. Whereas my aim is not to make a variable-based comparison, the tables highlight important similarities and differences. Based on these cases, we may hypothesize that in a study of privatization outcomes using a broader sample, institutional conditions such as initial performance, the pace of institutional change, the relationship between the private operator and the regulatory agency, as well as political and macroeconomic conditions identified below would all be worth testing with respect to privatization outcomes. Mobilization is also important here, but more for its internal characteristics and timing of emergence than for its impact on outcomes. In this study, my aim is to look at the characteristics of the cases not only using a variable-based lens, but primarily to take into account process and events: the historical institutional legacies that characterized the cases, the sequences of events, and how water and sanitation institutions fit into broader patterns of state-society-market relations in the two countries.

Table 1.2. Sector-Specific Institutional Conditions Affecting Privatization Outcomes

	Pre-privatization W&S coverage	Pace of change	Conflict with regulatory agency	Concessionaire	Privatization outcome
Santiago, Chile	High	Slow	Low	Majority held by multinational	Accepted
Buenos Aires, Argentina	Low	Fast	High	Majority held by multinational	Rejected

Table 1.3. Political Conditions Affecting Privatization Outcomes

	Democratization following dictatorship	Form of democratic transition	Elite support for privatization	Ruling party support for priv.	Mobilization against initial privatization	Privatization outcome
Santiago, Chile	Yes	Transition by agreement	Yes	Yes (Christian Dems, PPD)	Yes but narrow (Unions only)	Accepted
Buenos Aires, Argentina	Yes	Transition by collapse	Yes	Yes (Peronist)	Yes but narrow and fragmented (Neighborhood associations, consumer groups)	Rejected

Table 1.4. Civil Society Conditions Affecting Privatization Outcomes

	Strong union mobilization against initial privatization	Union mobilization at some stage of privatization	Coalitions against initial privatization	Broad alliance against water privatization	Privatization outcome
Santiago, Chile	Yes	Yes	No	Yes (but emerged late around water resources, not just utilities)	Accepted
Buenos Aires, Argentina	No	Yes	Yes but narrow and fragmented (neighborhood associations, consumer groups)	Yes (but late and linked to austerity and crisis)	Rejected

Table 1.5. Economic Conditions Affecting Privatization Outcomes

	Pressure from international financial institutions	W&S privatization timing relative to other privatizations	Economic crisis during concession	Privatization outcome
Santiago, Chile	Low	After two rounds of prior privatization	No	Accepted
Buenos Aires, Argentina	High	Concurrent with other privatizations	Yes	Rejected

Why Study Water? Water as Social and Environmental Policy

Water and wastewater treatment provision tends to have an ambiguous status as a case of social policy in the social sciences literature. In welfare state scholarship, which represents the core body of work examining social policies in sociology, social provision typically refers to the set of policies that states adopt to address economic insecurity (Haggard and Kaufman 2008; Huber and Stephens 2012). Thus programs that support individuals through pensions, unemployment insurance, family leave, sick benefits, and other forms of social insurance are typically treated as the core provisions that decommodify individuals over the course of their participation in the labor market. In practice, social expenditures by states tend to be highest for areas like pensions, health care, and education, reinforcing these areas as the core areas of focus for investigating social spending.

Meanwhile, water and sanitation policy, if considered at all, is referred to briefly in some studies of the welfare state in developing countries, especially in tandem with housing policy (Haggard and Kaufman 2008; Sandbrook et al. 2007), or in studies of public utilities and infrastructure reforms (Murillo and Martínez-Gallardo 2007), though studies of market-oriented

infrastructure reforms tend to focus on sectors such as telecommunications, roads, and electricity, considered as more straightforward cases to investigate how responsibilities for infrastructure typically located in the public sector have been altered through increased ties to private industry.

Yet water and sanitation policy not only forms a core area of public sector responsibility established during the twentieth century, but also clearly has implications for social welfare and environmental health. We can often see this sort of treatment in the literature on environmental inequality, as well as in historical studies of nineteenth-century and early-twentieth-century United States and Western Europe, for instance, where water distribution has been analyzed as a policy affecting public health (Foss-Mollan 2000; Melosi 2000a). Whereas water supply and distribution is now less problematized in advanced industrialized countries, in middle- and low-income countries, water distribution and wastewater treatment remain open policy questions as the sector has often not developed in step with the growth of cities and increasing population density. In many urban areas in Latin America in the 1970s and 1980s, rates of access to basic sanitation services were still far from covering the entire population and there were few facilities for wastewater treatment, leading to concerns about public health and pollution. For example, in cases where households lack access to adequate quantities and qualities of drinking water, people might typically get groundwater by drilling wells and installing small pumps near the household site or by purchasing bottled water through formal or informal means. The former often results in the consumption of inadequately treated water, whereas the latter tends to result in increased costs in families already living in poverty.

Water policy is also often incorporated into redistributive politics, even if on a much smaller scale than other types of public expenditure, especially when the state has charged a

“social tariff” for water services, used cross-subsidies among different categories of users or geographic regions, or accompanied privatization with state subsidies to low-income households who would otherwise not be able to keep up with the rate increases. The relationship between the state and the water industry thus affects standards of living, and water policy has corresponded to a form of public social provision, especially in contexts where patterns of water provision have coincided with socioeconomic and spatial inequality.

CHAPTER 2 Discovering Water and Sanitation as a Global Problem and a Global Market: International Organizations, Multinational Companies, and the Rise of Water Privatization

When the World Bank began making "development" loans to the global South starting in the late 1940s, it wanted to have nothing to do with water and sanitation utilities. The vast majority of water-related Bank loans went to irrigation projects and hydroelectric power development; water utility projects were considered to have too many complicated "social" components. Yet by the late twentieth century, the World Bank had not only become directly involved in the water and sanitation sector, but also became one of the biggest proponents of privatization policies, with broad implications for experiments with water privatization worldwide. Whereas most studies of water privatization refer to the World Bank at this latter stage, in this chapter, my aim is to consider how this shift took place.

I argue that the increasing attention paid to water and sanitation as a global problem starting in the 1980s, especially by the development assistance and human rights communities, inadvertently led the Bank to become more involved in the water and sanitation sector, and through its involvement, to definitively shape the dialogue about which policy paradigms were the most legitimate approaches to problems in the sector—namely, reorganizing and reducing public sector provision, and involving private multinational companies. The World Bank was not only the locus of "Washington consensus" policies, but also served as a conduit between various parts of the international community: its connections to organizations like the World Health Organization and the United Nations Development Programme pushed the Bank to gradually

become involved in the water and sanitation sector, while its connections to organizations promoting international trade and market-oriented policies led it to develop an increasingly narrow commitment to privatization, which it then promoted until a series of mixed experiences led to a decline in privatization-oriented models and a renewed emphasis on strong state capacity, a more circumscribed role for private companies in the form of "public-private partnerships," and a call for civil society and community participation.

The consequences of these shifts were significant. The construction of access to water and sanitation as a global problem that needed to be rectified with development assistance inadvertently opened the sector to multilateral lending and eventually, to the participation of multinational private sector companies that arrived at the tables of policymakers implementing market-oriented policies, often on the advice of experts from international organizations. These companies would then participate in providing water and sanitation services under highly favorable conditions, often with access to development loans and protected by new instruments such as bilateral investment treaties, while the state and civil society groups grappled with the consequences of the arrival of this new model, with different paths and outcomes, as we will see in Chapters 3 and 4, where these international processes intersected with politics on the ground in Argentina and Chile.

From Dams and Reservoirs to The First Water Decade: Discovering Water and Sanitation as a Global Problem

Following World War II, the International Bank for Reconstruction and Development (IBRD) and other recently established international organizations embarked on the task of

helping to rebuild Europe and bring peace to a continent devastated by war. While at the outset the IBRD's central mission was to provide post-war reconstruction loans, the bank also eventually began to lend money and undertake projects in Asia, Africa, and Latin America. Incidentally, Chile was among the first countries to express interest in applying for a loan, along with European countries, and in 1947, a bank mission arrived to study the sectors that had been referenced in the loan application, ranging from hydroelectric power development and forest industries to various improvements to ports, railways, and transportation facilities. The loans made to Chile the following year, for a hydroelectric power project and an agricultural machinery project, were the first Bank loans made to a Latin American country and the Bank's first "development" loans.[1] Other Latin American countries would soon follow.

Continuing this trend, from the late 1940s to the early 1960s, well over eighty percent of World Bank development lending to poorer countries would go to power and transportation projects, with a small amount of funding given to develop industry, telecommunications, and agriculture and irrigation. For example, the first World Bank loan to Argentina, signed in 1961, was for a highway construction and maintenance project,[2] which was followed by a power supply project for the Buenos Aires metropolitan area in 1962.[3] No funding was designated for health, education, or other sectors with a strong social policy dimension; the reasoning was often framed in terms of what preconditions were necessary for "development," though in part focusing on loans for roads and electricity allowed the World Bank to maintain the position that it was neutral during a time when the Cold War was intensifying.

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[1] The other loans issued were reconstruction loans to European countries. World Bank Group Archives. 2013. "First Funding For Chile." in *Chronology 1944-2005*. Washington, DC: World Bank.
[2] IBRD. 1961. "Appraisal of a Highway Construction and Maintenance Project, Argentina." June 20. Department of Technical Operations. Restricted Report No. TO-286a.
[3] IBRD. 1962. "Buenos Aires Power Project SEGBA, Argentina." 10 January. Department of Technical Operations. Restricted Report No. TO-306a.

There were divided views on this approach within the organization.[4] For example, in an interview with the World Bank Oral History Program, Davidson Summers, the Bank's general counsel at the time, recalled: "'the Bank would not finance city water supplies although it would finance irrigation, because water supplies were not 'productive' and irrigation water was. I thought this was ridiculous'" (Kapur, Lewis and Webb 1997, 110).[5] But even if the Bank was not yet willing to direct resources to improve water and wastewater infrastructure or service provision, this did not mean that other international organizations were not getting involved. International monitoring programs tracking the state of drinking water and sanitation systems had been going on since the 1930s, when the League of Nations Health Organization began collecting data through its rural hygiene program, later handing the responsibility over to its successor, the World Health Organization (WHO). In the late 1950s, WHO had the leading role among UN agencies with respect to water and sanitation sector projects, and in 1959, the World Health Assembly explicitly prioritized the improvement of health conditions in member countries by providing "safe and accessible water supplies" (WHO and World Bank 1985).[6] In the 1960s, the WHO also began to send annual questionnaires to the Ministries of Health of participating countries and to advocate for the need to pay attention to water and sanitation on a global level as part of social medicine and public health considerations (Bartram et al. 2014). Around the same time, the Pan American Health Organization was created, creating an additional space for transnational ties to form among public health professionals working at the regional level.

[4] Also, see Mason and Asher (1973) and Currie (1981).
[5] The original interview was done for the World Bank Oral History Program on 18 July 1985, p. 11. (See fn. 86 in Kapur, Lewis and Webb 1997).
[6] Document WHO/CWS/85.1. Note that the Pan American Health Organization was set up in 1958, as the successor to the Pan American Sanitary Bureau (set up in 1923) and the International Sanitary Bureau (set up by the First General International Sanitary Convention of the American Republics held in 1902). For more on the history of PAHO, see PAHO (1992) and Cueto (2007).

In 1960, the International Development Association (IDA) was set up alongside the IBRD as the World Bank's arm that would focus on lending to the poorest countries, with the stated mission of reducing poverty and inequality. In a 1961 interview discussing how IDA assistance might differ from traditional IBRD projects, J. Burke Knapp, then Vice President of the Bank,[7] commented:

> We have somewhat more freedom of action under the charter in choosing the kinds of projects which we might finance. We can lean a little in the direction of taking those things which have come to be known as social projects rather than directly productive economic projects. My own definition of these is things that are less investment in future productivity and more satisfaction of current welfare requirements, like housing, water supply, other municipal services. Our sort of doctrine in the main in the past has been that those things were the fruits of economic development and that we would rather invest in the means of economic development and let countries develop the taxable capacity and the productivity that would enable these amenities to be provided. But anyway we may be able to lean in that direction…[8]

Even as interest in water supply lending began to grow, World Bank officials, including Knapp himself, continued to be cautious, and in some cases outright skeptical of getting involved in water supply projects, on similar grounds:

> In 1966 there developed a concern to cool the enthusiasm for water supply lending. Knapp cautioned against an excessively fast growth in such lending, while Michael Hoffman worried about the problem 'posed by the energy with which the World Health Organization is producing urban water supply projects which, if carried out, would require huge amounts of capital.' Kamarack suggested that as 'an immediate deterrent' to WHO's enthusiasm, 'more attention should be given to possible unfavorable side effects of improved water supply,' such as higher population growth and overcrowding. Somewhat defensively, the Water Supply Projects Department insisted on strict financial and productive justification of their projects. (Kapur, Lewis and Webb 1997, 200).[9]

Following the creation of the IDA and with the World Bank's coordination with the more "socially minded United Nations agencies" (Kapur, Lewis and Webb 1997, 196), the

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[7] Also, see oral history interview at the Truman Library.

[8] The World Bank/IFC Archives. Oral History Program. Transcript of interview with Burke Knapp by Professor R. Oliver. Oral History Research Office, Columbia University, July 1961.

[9] Kapur et al. also cite the following in their discussion of the Cavanaugh interview: "If we got into the social field…then the bond market would definitely feel that we were not acting prudently from a financial standpoint…If you start financing schools and hospitals and water works, and so forth, these things don't normally and directly increase the ability of a country to repay a borrowing."

organization's outlook began to shift. Still, it would not be until the Bank's overall change in orientation toward poverty reduction (Finnemore 1997) that water and sanitation would get increasing attention, after other organizations such as the WHO had continued to study and advocate on behalf of the sector as an area of international concern, and lenders such as the Inter-American Development Bank had slowly begun funding water and sanitation projects in Latin America.

Broader developments within the international organizations associated with the UN system would continue to shift concerns in the direction of discovering water and sanitation as a global problem and an important part of "development." For example, upon the suggestion of US President John F. Kennedy's proposal to the UN General Assembly, the 1960s had been designated as a United Nations Development Decade so that the UN system would "'develop proposals for the intensification of action in the fields of economic and social development.'" By the end of decade, when work on the objectives had not adequately progressed, the UN Economic and Social Council made plans for the Second Development Decade in the 1970s. As part of these plans, the WHO would work to link health to other aspects of development:

> Many health problems cannot be resolved in isolation and require parallel advances in other social and economic sectors. Similarly, development, associated with urbanization, housing, the building of roads and construction of water works, has a strong health component. With WHO's active involvement, specific global objectives were established in the field of health…The section that addressed human development further defined what was hoped to be achieved in the field of health: '…Each developing country will endeavor to provide an adequate supply of potable water to a specified proportion of its population, both urban and rural, with a view to reaching a minimum target by the end of the Decade.' (World Health Organization 2008)

In late 1968, the WHO had convened the first expert committee to consider the "problems of community water supplies"; Professor Abel Wolman, who had participated in the commission that created the WHO in 1946 and had promoted the topic of environmental hygiene,

chaired the meeting (World Health Organization 2008, 256). The same year, PAHO evaluated progress toward goals set in 1961 in the Charter of Punta del Este, aiming for "the provision of adequate potable water and sewage disposal to no less than 70% of the urban and 50% of the rural population" (63). The Pan American Sanitary Engineering and Environmental Services Center was established in Lima, Peru, to provide technical assistance on "air pollution, industrial hygiene, housing and urbanization, physical planning, water treatment, systems analysis, and hydraulic resources" (66).[10] In the early 1970s, a cholera epidemic would lead the WHO to increase its activities to improve water supply and sanitation, with "WHO field engineers, sanitarians and sanitary chemists" (256) becoming involved in cholera control and prevention.

By the 1970s, international organizations began to shift from development-as-economic-growth to a broader vision of development. For example, one important notion that emerged in the 1970s was the concept of "basic needs," which was promoted by organizations like the International Labor Organization (ILO) and UNICEF. In one important ILO conference, the "aim of development" was discussed as "mak[ing] the basic necessities of life available to the majority of the population." The two main elements comprising basic needs included the "minimum requirements of a family for private consumption: adequate food, shelter and clothing, as well as household equipment and furniture" and "essential services, such as safe drinking-water, sanitation, public health, educational and cultural facilities and public transport" (WHO 2008, 19). Yet water and sanitation projects in urban areas proved to be difficult to implement. According to one count, six of the early "large-scale urban water supply and sewerage projects, financed by UNDP, proved so complex and time-consuming that they were retarding efforts to reorganize simple programmes in the rural areas where the majority of people lived" (61).

[10] The Pan American Centre for Human Ecology was established in Mexico around this time.

When Robert McNamara arrived as president of the World Bank, his emphasis on poverty alleviation helped to institutionalize poverty reduction as a principle orienting the Bank's programs. As Finnemore (1997) puts it, prior to 1968 "being 'developed' meant having dams, bridges, and a (relatively) high GNP per capita…after 1973, being developed also required the guarantee of a certain level of welfare to one's population" (205). Consequently, the World Bank began to turn its attention more consistently to water development projects in the 1970s. Visvanathan Rajagopalan, who began at the Bank as a civil engineer specializing in water-related programs, reflected on how internal organizational changes in the Bank influenced its activities throughout the world:

> When McNamara was there, there was a clear sense of direction. There was a clear sense of leadership…Although we all knew that providing basic services was critical to development, here was a president of the World Bank who actually talked about it! It gave us a sense of purpose, a mission, and also a vision of where the institution was going. Now, after McNamara, when Clausen became the president, that attitude changed. McNamara emphasized the development side of the Bank's activities. Clausen, on the other hand, emphasized the financial side…Clausen introduced new financial instruments. If it weren't for Clausen, I don't think we will be doing so many co-financing and privatization activities today.[11]

The balance of power within the bank would also gradually shift from "well-trained technicians who had extensive experience in dealing with less developed countries" to "economists" who were "good at writing reports," suggesting that a particular technical approach would begin to predominate in formulating the Bank's internal policy agenda.[12] Still, Yves Rovani, another Bank official who headed the Public Utilities Department in the 1970s recalled: "By the time I was appointed Director of Public Utilities in October 1972, the shift in focus to access to service had already become policy. This was clearly reflected in a paper prepared under my predecessor, Mervyn Wiener, as part of a series of sector policy papers issued in '70-'71 at the request of Mr.

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[11] World Bank. 1993. *Transcript of oral history interview with Visvanathan Rajagopalan held on January 1, 1993*. World Bank Group Archives oral history program. Washington, DC:World Bank.

[12] World Bank. 1993. *Transcript of oral history interview with Visvanathan Rajagopalan held on January 1, 1993*. World Bank Group Archives oral history program. Washington DC: World Bank.

McNamara. This set the stage for what had to be done."[13] During McNamara's term, the Bank also came to prioritize building networks of experts, which would become consolidated through initiatives such as the World Bank Institute. Meanwhile, the Bank's "urban development" lending had continued to be aware of the water sector's special characteristics:

> The water/sewerage sector shares one basic characteristic of other public utilities…it sells services to the public. But in the minds of many people it has a stronger 'social service' character. It is frequently classified, even in some Bank reports, as 'social' rather than 'economic infrastructure,' perhaps because no other public utility more closely affects the daily lives of people.[14]

Beginning in the same decade, between 1971 and 1984, the World Bank and the World Health Organization began to work together in the WHO/World Bank Cooperative Programme. Some of the early assessments of water and sanitation systems in Latin America were done through this program, and began to knit together the initial network of studies and experts that would continue to work on water and sanitation issues during the years to come. During its existence, the program completed 199 activities in 86 countries, with 34 projects in the Americas, including one sector study in Chile (in 1974, updated in 1977) and two in Argentina (in 1975 and 1979).[15] In collaboration with the Environmental Health Division at Geneva Headquarters, the program also supported the creation of a "pre-investment planning unit, composed of sanitary engineers, economists, financial analysts and management experts," who would provide "technical advice on water and wastes issues related to health, [undertake] pre-investment work for UNDP by contracting the services of consulting firms, and [conduct] sector studies and project cycle work" that were involved in the cooperative program (World Health Organization (WHO) 1984, 1). A water and sanitation program run by people from the World Bank and the

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[13] World Bank. 2003. *Transcript of oral history interview with Yves Rovani held on March 10 and 25, 2003*. World Bank Group Archives oral history program. Washington, DC: World Bank.

[14] World Bank, "Water Supply and Sewerage," Sector Program Paper R71-84, 22 April 1971, p. 4. Cited in Kapur et al. p. 258.

[15] World Bank. 1978. "Chile – Water Supply and Sewerage Project Project Brief." 12 June. World Bank Archives.

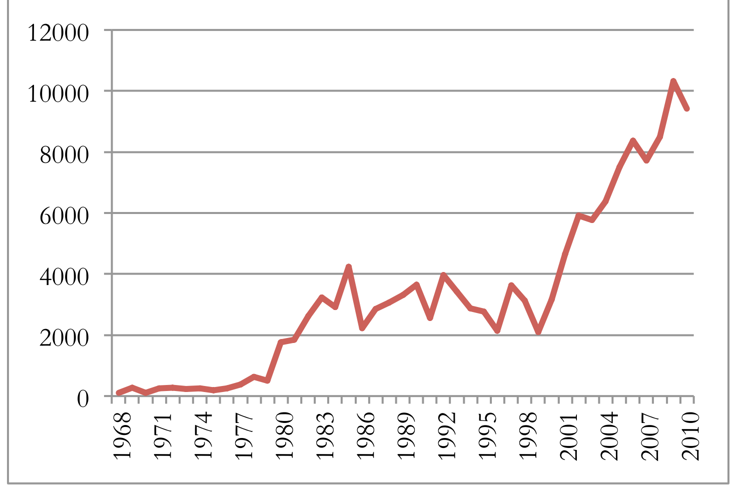
United Nations Development Programme would be set up in the early 1980s, leading to UNDP funding for social programs to be channeled through the World Bank (12). In this way, international development lending organizations gradually became directly involved in the sector.

Meanwhile, the World Health Organization continued to fight its own bureaucratic battles within the international community, working on convincing governments and funders that water and sanitation was clearly a health issue. According to the WHO, "in the late 1970s several studies concluded that it was hard to justify the provision of water supply and sanitation on the basis of health benefits alone" and "the Decade thus begun in a climate in which many governments and major funding agencies perceived water and sanitation as a high-cost intervention whose health impact could not be adequately demonstrated." The WHO would work to explain how several categories of diseases were directly related to water supply and sanitation services, and could be prevented if such services were improved, emphasizing especially diarrheal diseases, but also poliomyelitis and hepatitis A, worm infections such as guinea-worm disease, skin and eye infections, and insect-transmitted diseases such as schistosomiasis. Along with continuing to advocate for continued attention to water and sanitation as a health issue, the WHO also funded programming for health education, particularly for women and girls, and remained agnostic on the topic of privatization. At the 1978 Declaration of Alma-Ata, the WHO identified access to safe drinking water and sanitation as integral parts of a primary health care approach.

Eventually, the international focus on water and sanitation issues reached a critical mass. At a United Nations General Assembly session in November 1980, UN organizations designated the period from 1981 to 1990 as the "International Drinking Water Supply and Sanitation

Decade." The purpose of the decade was to bring attention to the challenges faced in water and sanitation around the world and to direct the attention of governments and international funders to investing resources to address this problem. As Figure 2.1 shows, total lending to water and supply projects by international organizations worldwide began to increase during this period, taking off in the late 1970s and early 1980s. The frequency of international conferences related to water would also increase (Table 2.1).[16]

Figure 2.1 Total Official Development Assistance in the Water and Sanitation Sector Worldwide, 1968-2012 (current prices USD millions)



Source: OECD Query Wizard for International Development Statistics (stats.oecd.org)

[16] Global policy forums on water also began to take place during the 1990s. For example, the Global Water Partnership was formed in 1996 and the World Commission on Water for the 21st Century was created in 1998. Other elements of this trend include the World Water Council, World Water Forums, the International Symposium on Water, the Water Media Network, the Global Panel on Financing Water Infrastructure, the World Business Council for Sustainable Development, and the *Platts Global Water Report* (Goldman 2005).

Table 2.1. UN International Conferences on Water and the Environment

Year	Event
1972	Stockholm Conference on the Human Environment
1977	Mar del Plata Water Conference
1990	New Delhi Consultation on Safe Water and Sanitation
1992	Rio Conference on Environment and Development
1992	Dublin Conference on Water and the Environment
1997	Cape Town Conference on Marine and Coastal Environment
1998	Paris Conference on Water and Sustainable Development
2001	Bonn International Conference on Freshwater
2002	Johannesburg World Summit on Sustainable Development
2009	Muscat First Ministerial Forum on Water
2010	Dushanbe Conference on the Implementation of the International Decade for Action "Water for Life"
2012	Rio+20

At the conclusion of the Water Supply and Sanitation Decade, international organizations reflected on what had been achieved to prepare their agenda for the 1990s. For example, in a report prepared in anticipation of the World Health Assembly in 1992, the WHO's Director-General reflected on how the sector had fared, evaluating the progress and results of the Decade, especially with respect to the WHO's emphasis on "water supply and sanitation as elements of the primary health care approach to health for all" (World Health Organization (WHO) 1991). WHO officials proposed a "community water supply and sanitation strategy for the 1990s," calling attention to "primary health care, greater coordination with the development community, and continued efforts to attain the ultimate goal of universal coverage" (1). The WHO's recommendations were relatively open-ended about the means to achieve these goals. The sections on institutional development referred mainly to national sector planning, cost recovery, sustainability, human resources development, and community participation. While the element of

cost recovery was there, there was still no explicit statement about involving the private sector.

Officials at the World Bank, however, were more specific about setting an agenda for how to achieve better outcomes in water and sanitation. In a report reflecting on ten years of efforts to extend access to adequate water supplies and hygienic toilets, the authors reflected on the achievements and the challenges yet to come. The main achievements of international community efforts had been "in the realm of ideas," particularly about the "roles of technology and engineers" and diffusing knowledge about basic technologies like hand pumps and low-cost latrines. However, the subsequent tasks would be different:

> The principal challenges of the next decade will not be technological questions—the 'hardware' of water supplies and sanitation—but the 'software' issues: How are water and sanitation programs to be organized and financed? How can people be trained, organized, and motivated to install, use, and maintain the facilities? How can institutions develop the sector further and make improvements more sustainable? These are the questions for the 1990s.[17]

It would be consideration of these dimensions of social organization, training, and financing—the institutional rules, norms, and scripts of water and sanitation provision—that would create an opening for redefining the role of the public sector in water and sanitation, as the World Bank began to push private sector participation as a means to solve institutional development problems and other multilateral lenders like the Inter-American Development Bank followed suit.

Beyond the Public Sector: The World Bank and the Extension of the Market Paradigm to Water and Sanitation

In the early 1980s, the World Bank was still "highly interested in improving the quality of public enterprise management," on "the implicit assumption that the firms in question were likely to stay public." Yet by the mid-1980s, the Bank gradually shifted toward openly

[17] Cairncross, Sandy. 1992. "Sanitation and Water Supply: Practical Lessons from The Decade." Water and Sanitation Discussion Paper Series. Washington, DC: IBRD/World Bank.

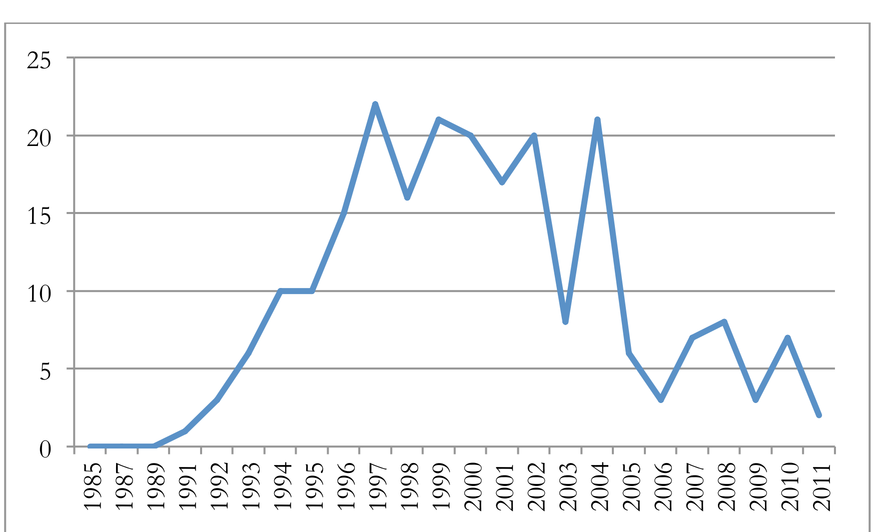
advocating the privatization of state-owned enterprises;[18] "first, with Secretary James Baker's speech in Seoul in 1985, then with the institution's involvements in Eastern Europe and the former Soviet Union," privatization "became a major item on the Bank's policy-promotion agenda" (Kapur, Lewis, and Webb, 514). By the 1990s, the Bank's privatization objectives, growing ever stronger, intersected with its policy prescriptions for institutional development, this time reaching water and sanitation. In the early 1990s, the World Bank was making mixed statements. For example, in 1992, the Bank's Operations Evaluation Department wrote in one study, "Water Supply and Sanitation Projects: The Bank's Experience, 1967-1989": "Greater involvement by the private sector offers one alternative that is increasingly advocated…However, this process will be slow paced and limited because of many factors" (41). The authors reflected on the need to reconcile economic efficiency, social equity, and financial viability, and there were still examples mentioned throughout the discussion of utilities as major, efficient public sector institutions. Yet by 1993, in a paper called simply *Water Resources Management*, the World Bank took a policy turn, saying: "The privatization of public water service agencies, or their transformation into financially autonomous entities, and the use of management contracts for service delivery will be encouraged." The report referenced the Dublin Statement made the previous year at the International Conference on Water and the Environment, which opened widespread discussions of water as an economic good.

Latin America, where governments undertook a series of transformative market-oriented reforms after a long period of active state involvement in the economy, became the site of some of the first major attempts to privatize water services in the global South (World Bank 2012). Figure 2.2 illustrates a marked rise in the number of new water and sewerage projects with

[18] See, for example, the 1981 Berg Report on development in Sub-Saharan Africa.

private sector participation (PSP) in the region. Between 1990 and 2004, private investment in the water and wastewater sector in Latin America amounted to almost $21 billion, accounting for approximately half of all private investment in the sector worldwide (Gleick et al. 2011).

Figure 2.2. Water and Sewerage Projects with Private Sector Participation in Latin America, Funded by the World Bank, 1985-2011



Source: World Bank and PPIAF, PPI Project Database (http://ppi.worldbank.org) -- LAC countries receiving World Bank funding for PSP projects include Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Guatemala, Guyana, Haiti, Honduras, Mexico, Panama, Peru, Uruguay, and Venezuela. PSP types include divestitures, concessions, management and lease contracts, and Greenfield projects.[19]

While international organizations had been undergoing their own internal changes and shifting priorities, many Latin American countries had experienced the effects of economic crisis during the late 1980s, creating fiscal pressure and a dearth of funds for state transfers after decades of state-heavy models of development. This crisis reverberated throughout different countries and sectors, reaching water and sanitation. Public water utilities needed money to make

[19] The PPI database defines these terms as follows: 1) management and lease contracts: "a private entity takes over the management of a state-owned enterprise for a fixed period while ownership and investment decisions remain with the state"; 2) concessions: "a private entity takes over the management of a state-owned enterprise for a given period during which it assumes significant investment risk"; 3) Greenfield projects: "a private entity or a public-private join venture builds and operates a new facility for the period specified in the project contract. The facility may return to the public sector at the end of the concession period"; and 4) divestiture: "a private entity buys an equity stake in a state-owned enterprise through an asset sale, public offering, or mass privatization program."

repairs, to extend service to growing urban populations, and to invest in additional equipment for wastewater treatment to handle increasing water use. As they turned to multilateral lenders to finance parts of the sector and allowed international policy experts at the table to address the issue of foreign debt, they were exposed to additional pressures to abandon the public sector model of service provision and move toward incorporating the private sector. Thus although this dissertation focuses on Chile and Argentina, a similar dynamic developed throughout much of Latin America in the 1990s (see Table 2.2), as country after country was faced with the decision to move from public in the direction of private forms of water service delivery, in the context of a broader shift from state-led development to pro-market public policies.[20]

Table 2.2. Countries Attempting Private Sector Participation in the Water and Sanitation Sector in Latin America

PSP in Water and Sanitation Attempted [a]		PSP in Water and Sanitation Not Attempted [b]
Argentina	Guatemala	Costa Rica
Bolivia	Honduras	Dominican Republic
Brazil	Mexico	El Salvador
Chile	Panama	Nicaragua
Colombia	Peru	Paraguay
Cuba	Uruguay	
Ecuador	Venezuela	

[a] Presence of law to allow PSP in water and sanitation sector on the books and/or examples of implementation.
[b] Discussions of PSP in the sector took place among policymakers and were covered by the media, but no concrete policy actions were taken.

[20] Based on my review of existing literature, the World Bank's Private Investment in Infrastructure Database, and newspaper sources, the countries which had water privatization projects in place or which attempted to privatize water services (by enacting legislation, holding a tender, etc.) since the late 1980s include Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. These include all of the nineteen Spanish-speaking countries in Latin America plus Brazil. In Costa Rica, Dominican Republic, El Salvador, Nicaragua, and Paraguay, government deliberations did not result in any actual private sector participation in the water supply, but there were still pre-emptive public protests. In some countries, water privatization was only directed at the utility in the major urban area (e.g., in Havana, Cuba). Critical societal responses in the region ranged from protests by unions, consumers, and other civil society groups to a national referendum held in Uruguay that led to the outlawing of water privatization and the establishment of the constitutional right to water.

Meanwhile, the World Bank began to pour funding into training local and international professionals on regulatory issues that were envisioned to be a key part of the institutional transformation. In the late 1990s, for example, the World Bank Institute set up educational centers on regulatory issues, covering both theory and practical training for government officials that were tasked with overseeing transformations of public sector companies all over the world. Centers were set up in France and China, as well as in Argentina. In Argentina, the center was called the Centro de Estudios de Economía de la Regulación (CEER) and was based at the Universidad Argentina de la Empresa in Buenos Aires. CEER was especially active between 1997 and 2008. In its early years, in 1998 and 1999, there was an especially important period of diffusion of WBI documents about regulation in the telecommunications, electricity, water, and gas sectors, with courses, consulting, and financing for related activities. The center also organized a working paper series (*Serie Textos de Discusión CEER*) with contributions on economic regulation theory and case studies on privatizing and regulating natural monopoly industries. In Buenos Aires, for example, there were two courses held annually intended to train experts in the region, and government officials and sector specialists came from all over Latin America, including Brazil, the Dominican Republic, Ecuador, Guatemala, Panama, Paraguay, Peru, and Uruguay.[21] During the course of its operation, the center trained between 700 and 800 students who later went on to work for regulatory agencies in privatizing sectors. As Goldman (2005) writes, transnational policy networks like this one brought together development professionals and state bureaucratic officials in the project of disseminating pro-market policies and other ideas emanating from global financial institutions.

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[21] Interview by author with Gustavo Ferro, Economics Professor at the Instituto de Economía UADE and former consultant for water and sanitation sector, Buenos Aires, Argentina.

As experiments with the new model, increasingly reliant on the state scaling back into a regulatory role, became prevalent, private sector operators gained opportunities to bid on public utilities. This change provided openings for both national and multinational private sector companies to bid on water and sanitation projects, putting them in new roles in new geographical contexts, and altering existing state-society relations where privatization went forward.

International Trade and Development: Liberalizing Trade in Services, ICSID and Bilateral Investment Treaties

The World Bank Group includes five organizations: the International Bank for Reconstruction and Development, the International Development Association, the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), and the International Center for the Settlement of Investment Disputes (ICSID). The IFC, MIGA, and ICSID are the arms of the Bank that work most closely with the private sector and investors. The IFC was created in 1956 and grew as an organization in the 1960s and 1970s; in 1981, it began to use the term "emerging markets" to promote investment in developing countries. The International Center for Settlement of Investment Disputes (ICSID) emerged in the late 1960s in the organizational setting of the World Bank, as a space in which members and foreign investors would resolve disputes according to a set of international conciliation and arbitration procedures. ICSID was brought into being by the ICSID Convention that member governments signed in order to create the arbitration body, though in its early decades it received very few cases (Parra 2012). However, over the past several decades, the rise of an international investment law regime and a striking increase in bilateral investment treaties—there are more than two thousand in

place today—conferring rights on transnational investors has led to a surge international arbitration disputes, especially about alleged claims of BIT violations. Argentina has been one of the nations most frequently appearing in the tribunal and also one that has sought to vehemently defend its prerogative to make policies to address the events and conditions on its territory even if they go against the interests of foreign investors. MIGA was set up in 1988 to promote foreign direct investment by providing insurance and to "protect investors against risks of transfer restriction (including inconvertibility), expropriation, war and civil disturbance, breach of contract, and non-honoring of financial obligations." A series of other developments in trade have impacted the story told here. The General Agreement on Trade in Services (GATS), which is the first multilateral trade agreement to extend multilateral trading to services,[22] entered into force in January 1995 for all members of the World Trade Organization (WTO), following the Uruguay Round of trade negotiations that took place from 1986 to 1993. Trade in services on a global scale had grown especially quickly since the 1980s, in part due to the rise of international supply chains, and the agreement was put in place recognizing "the need for internationally recognized rules" that would facilitate further expansion of this form of global trade.[23]

Service Providers from Abroad: Transnational Water Companies in Search of New Markets

The major multinational companies working in the water and sanitation sector come from France (Suez/Lyonnaise des Eaux, Saur, and Veolia/Compagnie Generale des Eaux), Spain (Agbar/Sociedad General de Aguas de Barcelona), the United Kingdom (Thames Water and

[22] The General Agreement on Tariffs and Trade (GATT) was created in 1947 to cover trade in goods. It was replaced by the World Trade Organization in 1995.
[23] WTO. 2013. *The General Agreement on Trade in Services: An Introduction*. Trade in Services Division. 31 January.

Anglian Water), and to a lesser extent, the United States (Bechtel and Azurix Corporation, a subsidiary of Enron). For example, Suez and Veolia, the two largest transnational water supply and wastewater management companies in the world, are French.[24] Just as they divided water distribution for the city of Paris between 1985 and 2010 (in their former versions of *Compagnie Generale des Eaux* and *Lyonnaise des Eaux*), with *Compagnie Generale des Eaux* supplying the Left bank and the *Societé Lyonnaise des Eaux* supplying the Right bank, after Jacques Chirac, then mayor, implemented the privatization plan, they have had a long-running competition to dominate the world market in environmental services.[25]

In France, extensive private sector participation in water management has been around for more than a century.[26] *Suez Environnement* was established as part of development around the Suez canal in the late 1850s, when Ferdinand de Lesseps founded the *Compagnie universelle du canal de Suez* to link the Mediterranean with the Indian Ocean.[27] In 1880, the *Société Lyonnaise des Eaux* was created; it would merge with *Compagnie Financiere de Suez* in 1997, creating *Suez Lyonnaise des Eaux*. The *Suez Environnement* Group was created in 2002, combining operations in water management, waste management, and energy. In 2010, the group took control of *Aguas de Barcelona* (Agbar), a water industry company based in Spain. The company markets itself as "among the world's leaders in water and waste management services."

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[24] Lorrain, D. 2005. "La firme locale-globale: Lyonnaise des Eaux (1980-2004)." *Sociologie du travail*; Goubert, JP. 1986. "La rente de l'eau: la stratégie industrielle de la Société lyonnaise des eaux et de l'éclairage 1880-1925." *Annales de la recherché urbaine*; Jacquot, A. 2002. *La Compagnie générale des eaux 1852-1952: un siècle, des débuts à la renaissance.* Baron, C. 2005. *Sociéte civile et marchandisation de l'eau: experiences internationales.*
[25] See Buller 1996. Marsh, David. 1984. "Private-sector water will drain Parisian pockets." 28 December. P. 1.
[26] Despite having a strong state and publicly owned electricity and gas utilities, water and sanitation utilities have been privatized in France for over a century. For a comparative analysis of privatization in the French and German cases, see Fitch (2007).
[27] See: Fitzgerald, Percy Hetherington. 1876. *The Great Canal at Suez: Its Political, Engineering, and Financial History. With an account of the struggles of its projector, Ferdinand de Lesseps*. London: Tinsley Bros; Pudney, John. 1968. *Suez: De Lesseps' Canal*; Benz, Francis. 1939. *On to Suez! The Story of De Lesseps and the Canal*. New York: Dodd, Mead.

Meanwhile, *Veolia Environnement*'s[28] predecessor company *Compagnie Générale des Eaux* (CGE) was created in December 1853 by imperial decree with the dual objective of supplying water to cities and irrigating the countryside. The company's first contract was to supply water to Lyon. Over the next several decades, CGE began to create projects outside of France, acquiring water production and distribution rights in Venice in 1880, in Constantinople (Istanbul) in 1882, and in Porto in 1883. The company currently markets itself as an environmental management services firm with four divisions: water, environmental services, energy, and transportation.

The French water firms had been interested in opportunities to expand abroad for decades, whether it was in neighboring countries or in the Americas. For example, in the late 1980s, when Britain moved to expand privatization in its water and sanitation industry and set up public limited companies in the sector, *Lyonnaise* and other French water companies began to diversify their portfolios by buying up minority stakes in British water companies. The developments set off a flurry of headlines in the British press, referring to "French raids on British water companies" and the "sharks circl[ing]."[29] The London version of *The Financial Times* even reported about Christine Morin-Postel, one of the vice presidents of Lyonnaise: "critics see her as a strident Joan of Arc at the head of French forces." And when *Lyonnaise* bought stakes in Anglian Water only a week after it had been on the market, one reporter wrote: "when asked to pick the appropriate metaphor to describe their first week as a quoted company, the directors of Anglian Water would probably select 'thrown in at the deep end' as it was now 'contemplating co-existence with a large French shareholder—Lyonnaise des Eaux—best known in the UK for

[28] Veolia Environnement S.A. employed 202,800 people as on December 31, 2013. The company recorded revenues of $29,639.9 million during the financial year ended December 2013 (FY2013). The operating profit of the company was $651.5 million in FY2013.
[29] Hill, Andrew. 1989. "Swimming for beginners while the sharks circle: The French raid on UK water companies." *Financial Times*, p. 23. 19 December.

buying four of the UK's private sector water companies in the last 18 months.'" They were grateful that the Government still maintained "a Golden share" in the utilities and that there was a 15 percent restriction on shareholdings in each water company."[30] These European companies took the lead in pursuing a global market in water services, soon to be followed by a handful of companies from other countries.

Conclusion

Perhaps it was inevitable that during the neoliberal era, market logic spread to all policy domains that had a strong public sector presence and were tied to the developmentalist welfare state. Yet water and sanitation services were not prime candidates for market-oriented transformation and in some sense, were located at the limits of neoliberalism, both because they were politically sensitive policy problems and because even from the perspective of transnational capital, it was not immediately obvious that they could be promising candidates in the search for emerging markets.

In this chapter, I traced the international developments that set the stage for the implementation of private sector participation in water and sanitation throughout Latin America. I focused on the case of the World Bank, one of the most influential organizations promoting Washington Consensus policies in general and water privatization in particular, alongside other international organizations, as well as considering the transnational private sector actors that came to have a central role in the water privatization saga in Argentina, Chile, and other parts of Latin America. Whereas today the World Bank is often viewed as one of the global purveyors of ideas and projects embracing water privatization, during the 1950s and 1960s, the Bank wanted

[30] "French raids on British water companies – Lyonnaise des Eaux." *Financial Times*. 19 December 1989.

to have nothing to do with water and sanitation programs because they had an overly complicated "social" dimension. It was organizations like the World Health Organization and various UN agencies that first became involved in water and sanitation issues as a global problem. As I suggest, it was the discovery of water and sanitation as a global problem after the Second World War by the international community—including the World Health Organization and other parts of the UN system—that set off a chain of events that would eventually lead the World Bank to move toward more "social" programming like water and sanitation.

These developments form an important backdrop to the efforts to implement privatization and the social responses that ensued, analyzed in the next two chapters. Yet by discussing these events unfolding at the international level, I do not suggest that the privatization paradigm was simply administered and diffused in a top-down manner throughout Latin American states. As the work of Dezalay and Garth (2002), Fischer (2009) and Mitchell (2009) in Mirowski and Plehwe (2009), and others makes clear, there were many conduits for ideas from international organizations and other countries to enter into and influence Latin American politics. Outlining loan conditions that included privatization programs was certainly one mechanism, but the effort also involved the creation of epistemic communities of professionals and the circulation of knowledge that involved local elites and made the adoption of pro-market ideas especially pervasive, affecting entire generations of policymakers. Economists trained in the United States and Europe, engineers that worked throughout the Americas in addition to working in their own countries, think tanks and training centers—all of these elements contributed to precipitating a true paradigm shift as opposed to a program that was entirely externally imposed. The rise of programming related to water and sanitation by the World Bank and other international lenders

was crucial for creating networks of technical staff that would promote and train local professionals, creating conduits through which knowledge and experiences about privatization would be shared, and powerful transnational economic players introduced into national and local politics.

CHAPTER 3 Embracing Market Logic in Chile: The Radical Transformation of Public Water Utilities and the Delayed Emergence of a Movement for the Defense of Water

Over the last several decades, Chile became one of the countries in Latin America in which the privatization of urban water utilities went the furthest and has remained firmly in place despite episodes of uncertainty, public criticism, and protest. How did the country become the site of such extensive water privatization experiments and how did they transform existing institutions in the water and sanitation sector? In this chapter, I analyze how water privatization was introduced and implemented in Chile, focusing on the case of EMOS—later transformed into Aguas Andinas—the water and sanitation utility serving the Santiago metropolitan area.[1]

As I will show, there were several surprising things about the fate of EMOS and other Chilean water and sanitation utilities. The first was that despite widespread market reforms by Pinochet's government, urban water and sanitation utilities were not privatized by the dictatorship, even though Pinochet introduced constitutional reforms and other legislation turning water resources into private property[2] and had intended for the water and sanitation sector to be privatized eventually, making a last-ditch effort to introduce laws preparing the sector for this shift during his last year in power. Meanwhile, international lenders like the World Bank gave loans to the water and sanitation sector under Pinochet, but did not actively pressure the government to incorporate privatization programs, though professional ties between local

[1] Lo Castillo and SMAPA also serve the area.

[2] In most countries, the privatization of water and sanitation utilities remained separate from changes to the status of water resources. However in Chile, which became a laboratory for free market ideas following the 1973 coup, the market paradigm became extended to both water resources and water utilities. Thus first, freshwater itself became characterized as private property that could be exchanged separately from the land, and then later, water and sanitation utilities—as public sector enterprises—were privatized and transferred along with their infrastructure and water use-rights to private operators.

professionals and officials at organizations like the World Bank and the Pan American Health Organization were important for sharing knowledge and models about sector reforms and would eventually influence the course of reforms in Chile.

The second was that although President Patricio Aylwin and the *Concertación* government, the first democratically elected government after the dictatorship, put plans to privatize water and sanitation aside, privatization plans were picked up again by the government of President Frei Ruiz-Tagle in the mid-1990s, when Frei made a strong commitment to proceeding with privatization despite resistance from some members of congress and from unions. Privatization plans were newly justified at this time based on the need to finance expensive wastewater treatment plants, mainly framed in terms of the potential to impact Chilean foreign trade, and to make room to allocate available government funding to other sectors that were considered more purely "social" than water, like health and education.

Third, the case of Chilean water utilities and especially the case of EMOS did not conform to the standard narrative of the private sector coming in to resolve problems of public sector inefficiency. EMOS was already high performing in terms of access to water and sanitation services, as well as self-financing and cost recovery, before the private sector ever became involved. There were some exceptions, but the other utilities had relatively high rates of water and sewerage connections as well. The fact that EMOS and other utilities were high performing made them not only more attractive to the private sector—a fact that was emphasized by those involved in the privatization—but also more likely to be interpreted as success stories after the privatization went forward. In other words, here privatization "worked" precisely because from the perspective of administration and coverage, there was relatively little to fix.

The chapter proceeds as follows. I begin by outlining the major changes made to the organization of water resources and water utilities under Pinochet and the early involvement of the World Bank during this period, and then move on to show how and on what terms privatization was pushed forward by the Frei administration. After analyzing the main features of the privatization and its outcomes, I conclude by considering pressures, exceptions, and instability in the new organization of the sector despite the introduction of extensive private sector participation into urban water and sanitation utilities in the country and their almost complete transformation.

A Coup and a Silent Revolution

On September 11, 1973, General Augusto Pinochet overthrew Salvador Allende's government in a coup d'état.[3] Tanks opened fire and military jets bombed La Moneda, Chile's presidential palace, after opposition parties had called for Allende's resignation as head of state. Allende had been democratically elected by a small margin against Jorge Alessandri, but his plans to implement socialist policies and attempts to actively increase the role of the state, nationalize industries like copper, and intensify the prior administration's program of land reform and redistribution through means including expropriation and an open rejection of the legitimacy of private property led to bitter conflict and fierce resistance that, amidst economic crisis, eventually led to the coup.[4] The coup was supported by a coalition of military officers,

[3] The shift to the left in economic policy had occurred while Chile still had a liberal democracy. Since the early nineteenth century, the country had maintained relatively stable political institutions, with the exception of a violent civil war in 1891 and a military takeover in 1925-1932. The army had been professionalized after the War of the Pacific in 1883, but it did not frequently get involved in the realm of politics. On the topic of US involvement in the coup, see declassified documents available at the GW National Security Archive.

[4] See Loveman (1976) on the history of agrarian reform in Chile; see De Vylder (1976) and Harmer (2011) on Allende and Popular Unity.

business elites, and conservative political forces like the *gremialista* movement, all of whom had been strongly opposed to Allende.

Over the next several years, while beginning a campaign of severe political repression that led to the disappearance of hundreds of the regime's opponents, Pinochet and his supporters began to transform Chilean institutions, motivated by a clear ideological vision and policy agenda rooted in monetarist thinking and radical market-oriented reforms, articulated in contrast to the specter of communism summoned by Allende's Popular Unity government and the structuralist thinking that had dominated the prior two administrations (Foxley 1982). By the mid-1960s, Chile had been experiencing intensifying class polarization. Leftist political parties allied with a militant working class increasingly clashed with rightwing parties allied with mobilized landed and business elites, while the rural poor began to participate in national politics after prolonged marginalization, injecting a new and unpredictable element to longstanding political conflicts (Sandbrook et al. 2007). Under Pinochet, sectors of society associated with the right would attempt to retake control of the country's trajectory.

Pinochet established a connection with the "Chicago Boys," a group of economists from the Universidad Católica and the Universidad de Chile who had received graduate training at the University of Chicago and other US universities, and began to implement the program *El Ladrillo*, which contained a set of policy prescriptions to restructure Chilean economic policies and the overall vision guiding the country's development.[5] Many of the economists that would go on to become part of the regime had been trained through an exchange program which had been set up back in the fifties, a program through which professors like Arnold Harberger and

[5] *El Ladrillo* was officially published and released to the public in 1992 (Centro de estudios públicos 1992). Economists Sergio de Castro, Pablo Barahona, Sergio Undurraga Saavedra, and Emilio Sanfuentes were leading participants. The document was written before Allende was elected and its authors had attempted to convince his political opponent to incorporate it into his policy agenda.

Milton Friedman shaped a cohort of students that would later design policies to change their country's institutions. As Chilean economist José Piñera—Minister of Labor and Social Security under Pinochet, and eventual reformer of the Chilean pension system—would put it in an interview several years later, the military government had come to power with a mission:

> On September 11, 1973, the Government acquired two [forms of] legitimacy…[that of the] savior and [of] the revolutionary. The legitimacy of the savior, to liberate ourselves from communism and to reconstruct the country…Revolutionary legitimacy…to carry out profound transformations [so] that the cycle that ended with Marxism doesn't repeat itself...As someone said, 'to make revolution is like riding a bicycle; if one stops, one falls.' The Government knows this, and considers stagnation to be its mortal enemy.

That mission was to bring about a "silent revolution," a "truly libertarian revolution." By the late 1970s, the military regime had put in place a fiscal austerity program to combat inflation and embarked on a set of structural reforms called the "seven modernizations" (*las siete modernizaciones*), which proposed institutional changes with respect to labor, pensions, education, health, agriculture, the judiciary, and administrative reforms to shrink the public sector—all using the language of greater individual choice, private property protections, and policy solutions based on free market principles.[6] Chile became a laboratory for the policies that would later come to comprise many elements of the "Washington Consensus." Milton Friedman even visited Chile to give a lecture tour, and his lectures were broadcast on national television and advertised in the national daily *El Mercurio*. Indeed, the government, with many of the Chicago Boys in high ranking positions, carried out market-oriented reforms—from liberalizing trade and capital flows to privatizing pensions, health insurance, electricity, and education (Fisher 2009; Gárate Chateau 2012; Valdés 1995). Natural resources were not at the center of the government's project; however, the paradigm became so pervasive that its tenets began to be applied across a wide range of policy domains.

[6] Interview with José Piñera by María Angélica Bulnes, *Revista Qué Pasa*, 27 December 1979.

Turning Water into Private Property

In January 1976, a small committee met in Santiago to discuss plans to rewrite the Chilean constitution. Less than three years had passed since the coup, and Enrique Ortúzar Escobar and Jaime Guzmán, two of Pinochet's key advisers, gathered with nine other lawyers appointed by the military junta to outline the guiding elements shaping the country's institutions and to draft the new constitutional text.[7] The conversation eventually came to water. On the one hand, the regime had wholeheartedly embraced the ideological program of the Chicago Boys. Water governance seemed to be just another realm where market logic could be applied to minimize state involvement. On the other hand, transforming all freshwater resources in the country into private property and an object of market exchange seemed like a large task and one that was not a priority relative to other more immediate economic problems.

Guzmán initially questioned the need to mention water resources at the constitutional level at all. Meanwhile, others were more insistent. One committee member, José María Eyzaguirre García de la Huerta, remarked that it was problematic that there was no "real use right over water resources, except for that designated as 'administrative'" and granted by the state. Samuel Lira Ovalle supported Eyzaguirre, stating that the subcomission on private property had "studied the problem and sought to reinforce the right of private property over water and not leave it in such a precarious state." Some members were not as convinced. Alejandro Silva

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[7] República de Chile. *Actas oficiales de la comisión constituyente sesión 182ª*, celebrada el miércoles 14 de enero de 1976. Enrique Ortúzar Escobar presided over the commission, which also included Sergio Díez Urzúa, Enrique Evans de la Cuadra, Jaime Guzmán Errázuriz, and Alejandro Silva Bascuñán. José María Eyzaguirre García de la Huerta, President of the Submission on Constitutional Reforms relative to Property Rights (*Presidente de la Subcomisión de Reforma Constitucional relativa al Derecho de Propiedad*), Samuel Lira Ovalle and Carlos Ruiz Bourgeois, members of the same subcomission, y Juan Luis Ossa Bulnes, Legal Adviser of the National Mining Society (*Asesor Legal de la Sociedad Nacional de Minería*) were also invited members. Rafael Eyzaguirre Echeverría was *Secretario* and Rafael Larraín Cruz was *Prosecretario*.

Bascuñán pointed out that "if all responsibility is turned over exclusively to the property owner, there could be great social damage when the general good of the community is not taken into account."[8] The discussions about the reforms went on for several more years. Still, the measure went forward quietly and in 1980, when the new constitution was put in place, granting property rights over water to individual parties appeared in the new text.[9] Soon thereafter, a new water code was written to complement the constitutional provision.

In October 1981, Chile's conservative daily newspaper *El Mercurio* ran a front-page headline announcing: "New Code: Free Transaction of Water Rights." With the new water code to complement the constitutional provision, individuals and organizations throughout the country could now register titles to freshwater, measured in volume per unit of time and corresponding to water physically located in particular rivers and aquifers. Once an individual party acquired a water property title, the property right was held indefinitely. The title could be kept or sold to willing buyers, regardless of where in the country they were located or what they planned on using the water for. The Chilean state would later acquire the right to intervene to prioritize a particular water use in times of emergency such as drought, but the new legal framework largely took the state out of the equation, seeking to create a market mechanism for the allocation of water resources. According to the article, because of state involvement until that moment "holders of water were not its owners and consequently could not carry out any type of transaction, which produced investment paralysis"; by contrast, now the value of the transaction would be agreed upon by those participating in the exchange and "in accordance with the law of supply and demand." Much hope was placed in the new water code: "full transactional freedom

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[8] República de Chile. *Actas oficiales de la comisión constituyente sesión 182ª*, celebrada en miércoles 14 de enero de 1976.
[9] 1980 Constitution of the Republic of Chile, Article 19, N. 24.

with respect to water" would permit "automatic regulation of its use, according to the judgment of specialists."[10] The new code, which was drafted in the Ministry of Agriculture but ultimately created the legal framework governing the distribution of all freshwater resources, would replace existing water-related legislation, including the prior water code and any references to water in the agrarian reforms undertaken by the Frei and Allende governments. The commodification of water resources was an extension of the faith in property rights and market logic that characterized the regime. Reflecting on the water code after the return to democracy, Hernán Büchi, an economist who served as Minister of the Treasury under Pinochet, reiterated that:

> ...the [water] problem would persist so long as the market was not allowed to function, for which it is fundamental to first recognize property rights in the sector and the rules of the market. Because that's what the problem comes down to, regardless of the fact that the word 'property' is still a bad word in many circles. Even the military government didn't dare to use the word directly...they refer to property over the right to use water, not property over water. This fear is absurd. Private property is by far the best system to safeguard social interests and the correct distribution of resources...[11]

As Caliskan and Callon (2010) put it, "...the ultimate association of property rights with things necessarily involves the establishment of specific technical, material, textual and legal devices which allow an owner(s) to be identified, which define the nature of the rights attached, and which dictate the terms of their enforcement." Once the water code was in place and freshwater was legally protected as private property, this property had to be formally linked to a natural or juridical person within the new legal framework—in other words, the "water rights" had to be formally constituted. This move would also allow use rights to be bought and sold among parties, facilitating market-like exchange. The state was needed to "create" the right and "later trust [would be] placed in the market so that the [rights would] reach those that really need

[10] "Nuevo código: Libre transacción de los derechos de Agua." *El Mercurio*. 30 October 1981. pp. A1, C8.
[11] Buchi, Hernán. 1993. *La transformación económica de Chile: del estatismo a la libertad económica*. Santafe de Bogota: Norma.

them, via purely private legal mechanisms" (Riveiro 2006) driven by the logic of free market exchange.

In the simplest instance, for a right to be created, a water user is required to register his or her water rights with the General Water Directorate (*Dirección General de Aguas*)[12] in the province where the physical point of capture is located. The request must include details such as the exact location of the body of water and its name (though in some cases, rights are requested to unnamed bodies of water), as well as the quantity of water to be extracted, measured in terms of volume per unit of time (e.g., liters or square meters per second). The point of capture must be indicated in terms of the UTM geographic coordinate system and the mode of extracting the water, be it gravitational or mechanical, must also be specified. Finally, the water user must specify whether the request is for consumptive or non-consumptive rights;[13] in the latter case, the point where the water will be returned to the water source must also be specified.

To address potential conflicts, the request for the water rights must be publicly advertised in four media sources within thirty days, to allow other parties the chance to come forward and contest the granting of unclaimed rights to the requesting party.[14] For the request to be granted, the DGA is also required to do a study of the availability of the resource, with at least two inspections of the point of capture, paid for by the natural or juridical person requesting the water rights. The DGA stresses that when the expert inspection visit takes place, the point of capture better be clearly marked and the person receiving them should know exactly where it is and how

[12] The General Water Directorate (*Dirección General de Aguas*), located institutionally within the Ministry of Public Works, was created in 1969.
[13] Other characteristics include whether the water right will be for continuous or discontinuous use and whether the user will alternate with other users. If water is for non-consumptive use, it must be returned in the "same quality, quantity, and opportunity."
[14] These include the *Diario Oficial*, *Diario de Santiago*, *Diario de la Provincia o de la Capital Regional correspondiente*, as well as a broadcast three times on the radio.

to get there.[15] Measurements are typically made by wading into the water to take various measurements at different points of the riverbed; if wading is not possible, then there should be a bridge or other infrastructure to facilitate the measurements.[16] In addition to registering the water right with the provincial DGA office, the use right must also be registered in the local *Conservador de Bienes Raíces*.

When the water code was initially passed, individuals and companies could simply register water use rights all over the country. They could register water use rights for free, acquiring indefinite title to them. Even though the idea came from neoliberal economists, in practice the water rights registration process also relied on lawyers, especially a new group of lawyers specializing in water law, who would assist with the necessary transactions between private parties and with maneuvers through the government bureaucracy. The process proved to be complicated for several reasons. First, despite the new legislation, many people did not become aware right away that they had to register their water rights to acquire title to them. Some communities, especially farmers with small landholdings in rural communities, faced a disadvantage when it came to access to the information about the necessary procedures to register rights. Second, between the implementation of the water code in 1981 and 2005, when it underwent moderate reforms, there were no restrictions on where one could register water use rights. What this meant was that an individual or organization from one part of the country could register water use rights–for free and with indefinite title–in another part of the country, where they were not planning to actually use the water. This led to a speculation problem, which was

[15] The instructions say "it is not the personal mission of this service to create paths" to the points of capture.
[16] Dirección General de Aguas, Ministerio de Obras Públicas. *Guia para la presentación de solicitudes de derechos de aprovechamiento de aguas superficiales*. [Guide for the presentation of requests for surface water use rights].

generated by the legal framework and relied on the disconnect between the water physically located in rivers and aquifers and the titles granting private title over them.[17]

Next, the idea was that the National Water Directorate would develop a centralized database of all the water property rights such that at least tracking the exchanges would facilitate some access to information about the state of water rights distribution across the country, but the database remained perpetually out of date because the information often did not make it from the local *Conservadores de bienes raíces* and DGA offices into the database, such that the information remained in a decentralized state. More importantly, the DGA would soon realize that water rights to some bodies of water were running out, especially in water-scarce areas. For example, the first section of the Mapocho River running through Santiago was declared closed off to the creation of new consumptive rights back in 1983.[18] In some cases, especially in the arid north of the country such as Copiapó and Atacama, use rights were registered and continue to be legally valid, but there is physically not enough water in the watershed for all the registered rights. The water to which they correspond does not exist. Especially in situations of water scarcity, coordination and in some cases, conflict resolution among different users became imperative. Water user associations and Juntas de Vigilancia at the water basin level help to fulfill this role, although their activity and effectiveness varies throughout the country. Furthermore, one issue is that in water basins where there are users with many use-rights, the use-rights of smaller propertyholders count for little.

[17] The reforms tried to address this by implementing fines–*patente por no uso*–but there has been disagreement about whether this has actually addressed the bulk of the problem because larger companies (like Endesa) can usually absorb the cost of the fine.
[18] Ministerio de Obras Publicas, Dirección General de Aguas, Departamento de Derechos de Aguas. DGA No. 383, Ref: Declara agotamiento de la Primera Sección del río Mapocho. Región Metropolitana. Santiago de Chile, 27 September 1983.

In practice, once water use rights are granted, the ability to claim one's share varies during the course of the year. In many cases, water user associations help to manage the day-to-day distribution of water uses, in accordance with granted rights. For example, one highly active water user association, the *Junta de Vigilancia* of the first section of the Mapocho River, takes the registered rights of its users and converts them into "shares" (*acciones)*. For example, for water rights used for irrigation, one share equals 14,700 cubic meters of water per year at the canal intake, with varied distribution throughout the year, ranging from a high of 3,300 cubic meters in December (equivalent to 1.232 liters/second) to a low of 700 cubic meters in April. For potable water, one share is equivalent to the right to use 1 liter per second all year. For industrial water, each share is also equivalent to 1 liter per second, but variation over the course of the year is established on a case-by-case basis.[19] The head of the Junta de Vigilancia sees one of the organization's main responsibilities as paying attention to the relationships among water users in the watershed, to avoid and manage conflicts.

However, water user associations have variable capacity and involvement throughout the country. When tensions run high, some water user organizations find that it is beyond their capacity to resolve them. As the head of the *Junta de Vigilancia* on the Huasco River explained, water titles may not always correspond to the reality of water distribution and patterns of use. This open-endedness also means that the *Junta de Vigilancia* may have not step in as an arbitrator, even though the mandate of the organization may not be clear, levels of training may vary, and the composition of the directorate, which usually corresponds to the largest shareholders of water use rights in the water basin, may not make for the most balanced outcome. Furthermore, some users approach the JV without fully understanding what it is and what it does,

[19] Derechos de agua primera sección de Río Mapocho, 15 November 2012.

but sometimes, the JV directorate has to adapt its functions as problems arise. As one water user association leader put it, "are we now also to serve a court"? Thus the Juntas de Vigilancia, where they exist, also serve an important role in allowing water to be treated as a market object on paper, by doing the day-to-day negotiation about the distribution of actual water resources.

The water code would eventually transform how all freshwater was managed in the country, dividing water use-rights into "consumptive" and "non-consumptive" categories, with titles to surface and groundwater use-rights held indefinitely by different users at the watershed level. In Chile, the vast majority of freshwater resources are typically used for agriculture, followed by industrial uses, especially mining, followed by water and sanitation.[20] Following reforms, water and sanitation utilities were expected to become formal water users within the new framework, registering water use-rights during the initial phase of the reforms and later competing with other users to purchase water rights to continue providing their customers with water and sanitation services. Under the new institutional framework, the state was not authorized to prioritize uses other than in times of emergency, and water-use rights held by drinking water utilities came to have the same validity as those used for agriculture, mining, electricity, and other uses by large and small property holders alike. If one type of user needed additional water resources, the user was expected to purchase the water use-rights from another user who was willing to sell.

Nevertheless, there were several terms that would become sources of ambiguity. For example, the constitution stated that the "rights of individual parties over water, recognized or constituted in accordance with the law, grant to their titleholders property over water."[21] Yet the

[20] For example, approximately 73% of freshwater is used for agriculture, 12% for industrial uses, 9% for mining, and 6% for water and sanitation.
[21] Article 19, N. 24.

water code continued to refer to "*derechos de aprovechamiento*," or rights of use. Some critics pointed out that water was constantly changing—flowing, evaporating, coming down in the form of precipitation, entering groundwater currents—and therefore did not have any stability as an object of property. Others clarified that the solution was interpreting the property right to be held over the entire process of the water current "in all of its states" rather than "particular" water; while others found no problem with interpreting the right over water as a right of property over the actual substance without bothering too much about its transformative properties. A common middle position was an interpretation that tried to reconcile these issues through language, arguing that individual parties had real property rights, but over the *rights* to use water as opposed to water itself.

The other term that proved to be confusing and therefore contentious was the continuing reference to water as a national good for public use.[22] The reference was there under Allende and continued to be there under Pinochet, but the meaning had shifted. Writing in the early 1990s, even representatives of the General Water Directorate doubted its implications:

> While [the new code] maintained the concept that water is a national good for public use, the fact of the matter is that upon granting the right of use over water to private parties, this phrase in practice comes to have merely declaratory value.[23]

In practice, the state had lost the power to make claims about privately held water resources other than in states of emergency. Importantly, the state also lost the ability to intervene with respect to prioritizing some water uses over others. In other words, under market logic, water-use rights held by drinking water utilities came to have the same validity as those used for agriculture, mining, electricity, and other uses by large and small property holders alike.

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[22] Article 595, Código Civil. Article 5, Código de Aguas.
[23] Muñoz Rodríguez (1991), p. 327.

If one type of user needed additional water resources, the user was expected to purchase the water use rights from another user who was willing to sell.

The water code had different implications for different water uses. For example, it enabled a massive concentration of non-consumptive water use rights for electricity by the company ENDESA, which initially belonged to the state but is now part of a Spanish multinational. The mining industry, which is central to the Chilean economy and is viewed as a source of economic growth, has been able to purchase water use rights for its water-intensive resource extraction processes at increasingly high prices even in water-scarce areas, leading to a situation in which some communities lacking water use rights do not have the purchasing power to compete with these water users. In agriculture, the effects have been mixed. While large agroindustrial users have arguably had an easier time acquiring water use rights and extracting water resources, in some places small agricultural users have either decided to sell their water rights for a quick profit or put up a fight to defend their water resources. Water utilities have also had a mixed experience. When many of the water utilities throughout the country were sold to the private sector, including to French and Spanish multinationals, the water use rights were transferred along with them. In some regions, such as in the north, water utilities competing with other water users in agriculture and mining have had to explore alternative water production options such as desalinization plants, passing additional costs of water production onto consumers via increases in water rates.

Turning water resources into private property was a separate process from the reorganization of state-owned enterprises, yet it was an important precursor that would alter the way water resources were treated under Chilean law and by local institutions, fostering a double

commodification of water once utilities became privatized as well. The process of transforming the organization of the water and sanitation utilities, however, was much slower to unfold.

Transforming the Water and Sanitation Sector: The Early Years

Back in 1931, in the heyday of growing public sector institutions and import substitution industrialization (ISI), the General Directorate of Drinking Water and Sewerage (*Dirección General de Agua Potable y Alcantarillado*, under the Ministry of the Interior) was formed as the main public agency in charge of water and sanitation services at the national level, and in the early 1950s it was brought together with a different government entity, the Hydraulics Department (*Departamento de Hidráulica,* under the Ministry of Public Works). Before, the hydraulics department had focused on planning and construction of water infrastructure, whereas the directorate was in charge of administering the water supply system. Combining these areas, these two offices came to constitute the new *Dirección de Obras Sanitarias* (DOS), in the hope that having more communication between the two groups of staff would help the government deal with increasing crises and difficulties with meeting new demands in access to water supply and sewerage connections.

DOS would also work with the housing office (*Corporación de la Vivienda*) and the waterworks company of Santiago (*Empresa de Agua Potable de Santiago*), and set up provincial delegations throughout the country. By the early 1960s, the organization had a well-developed staff, with seventy-seven engineers on payroll, 207 professionals and technical staff, 588 administrative staff, and 1973 workers. While DOS was responsible for running the main features of the waterworks system, it was already contracting some services out to individuals

and companies, especially for construction (Del Valle 1962). It was during this epoch that the specialization of "Chilean sanitary engineer" became "consolidated and took a rather well defined form" (Del Valle 1962, 562). And though access rates fell short of universal coverage, the performance of Chilean water utilities was considered high relative to other countries during this period. For example, according to one report (World Bank 1980), Chile "ranked first in the Latin America and Caribbean Region in water service coverage from 1938 through 1961, with 71 percent of the total population served by the end of this period" (8).[24]

However, from the mid-1950s to the mid-1970s,[25] investments and improvements in coverage slowed down, especially as informal settlements, fueled by rural-to-urban migration, grew on the outskirts of Santiago and other cities, leading to the term *población callampa* (*callampa* means "mushroom" in Chilean Spanish). By 1976, even though access to water services increased to about 77 percent, Chile had dropped to thirteenth place among its peers (World Bank 1980). By the 1970s, it had become clear that renewed attention was needed for the sector. In 1971, a National Congress on Sanitary Engineering was held in Chile around the theme "Sanitation Means Health and Progress" ("*Saneamiento Significa Salud y Progreso*"), inviting engineers from the Chilean chapter of the Inter-American Sanitary Engineering Association (AIDIS) to contribute to an assessment of the water and sanitation sector in the country, and many of the recommendations revolved around improving institutional development, that is, the way the sector was organized. These recommendations and plans were put on hold as the country was thrown into political turmoil with the coup and the arrival of a new military government.

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[24] Note that statistics from this period are not always consistent. For example, another source reports that "between 1965 and 1975, potable water coverage in Chile went up from 54 to 77 percent and sewerage service coverage went up from 25 to 44 percent." However, most sources agree that by the mid-1970s, access to drinking water was in the high 70s.

[25] Around mid-century, there was also a growth in informal settlements—sometimes called *poblaciones callampas*—on the edges of Santiago and other cities as a consequence of rural-to-urban migration.

As Pinochet's regime began to make changes to the institutional framework of the Chilean state across policy domains, it eventually set its sights on reorganizing the water and sanitation sector. Turning its attention to water and sanitation services was a way to show it was concerned with the welfare of the population without engaging in political discourse; in fact, during this period, many newspaper articles by state-supported newspapers printed article after article reporting the number of meters of pipeline laid down in a neutral tone and matter-of-fact fashion.

The junta's first major organizational change was to shut down the DOS and to create SENDOS, the National Sanitary Works Service *(Servicio Nacional de Obras Sanitarias*).[26] In a sense, the decision strengthened the organization of the sector and gave clear authority over decision making to the central national office while simultaneously formally establishing utilities at lower administrative levels. Thus SENDOS was set up as an independent state organization connected to the Ministry of Public Works, with a national office, regional utilities corresponding to the country's eleven administrative regions,[27] and two additional state owned companies corresponding to two of the largest and most densely populated areas, the Santiago Sanitary Works Company (EMOS) in the Santiago metropolitan region[28] and the Valparaíso Sanitary Works Company (ESVAL) in the Valparaíso region. EMOS would cover water

[26] In 1931, the *Dirección General de Agua Potable y Alcantarillado* was formed at the national level; it became the *Dirección de Obras Sanitarias* in 1953. Between 1965 and 1975, potable water coverage in Chile went up from 54% to 77% and sewerage service coverage went up from 25% to 44%. There was no wastewater treatment at this time. Between 1968 and 1977, sources of financing for the sector came from 75% government budget, 15% external sources, and 10% tariffs. These resources were spent on investment (57%), operations and maintenance (13%) and personnel (30%). See Szczaranski (2006).

[27] Later expanded to thirteen regions.

[28] EMOS combined existing state-run utilities in the area—including the Empresa de Agua Potable de Santiago, the Servicio de Agua Potable El Canelo, Dirección de Obras Sanitarias, the Dirección de Servicios Sanitarios, and the Dirección de Alcantarillado de Santiago—into one system. (These days, the largest water service providers are Aguas Andinas and SMAPA; smaller ones are Aguas Cordillera, Aguas Los Dominicos, Aguas Manquehue, Servicomunal, Servilampa.)

provision for the majority of Greater Santiago, including Santiago itself and fourteen peripheral areas around the city center. Through the new waterworks service, the state would fulfill all aspects of water production, service provision, financing, and oversight/regulatory roles. SENDOS was to prioritize renovating public utilities, and took steps such as moving from a flat tariff rate for water services to developing a differentiated rate structure to reflect the cost of water in different geographic regions of the country, as well as moving toward self-financing.[29]

Guillermo Ruiz Troncoso, a civil engineer educated at the University of Chile, would head the service in its incipient stages. As Troncoso recalled, the transformation was not only about making institutional reforms and changing forms of organization in the sector, but also bringing in people that would usher in a generational shift in ways of working on water and sanitation issues. He recalled, "I had been a professor in the School of Engineering. I had students in their fifth and sixth years, guys that were close to getting out, so I started to bring all the graduates from my school here...It was a gradual [change]." One of those students, who started in SENDOS in 1977 and would eventually end up working for Aguas Andinas, recalled that it was a "new generation" that did not come from the traditional track of the Ministry of Public Works, that they were all "kids" (in Chilean Spanish, "puros cabros") who were open to considering new approaches to the sector. Prior to being called to head SENDOS, Troncoso had also worked at the Ministry of Public Works, as well as serving as head of AIDIS and doing international consulting work with the United Nations and the Pan American Sanitary Bureau, including on water and sanitation in other countries such as Colombia. His connections with

[29] Note the changes in housing policy and some of the connections. For example, the National Policy of Urban Development was approved in 1979, in 1981 there was a Basic Housing Unit Program created, and in 1982 city councils were authorized to build "economic housing units and sanitary stalls." Until the mid-1980s, social housing was mainly given to people living in the *poblaciones* on the city peripheries and in camps, but the program was gradually expanded. The urban development policy was modified in 1985, as the government was struggling with reconciling its commitment to minimal state intervention and the free market with the need to plan land use and direct urban growth.

regional professionals working in the sector gave the new organization access to additional resources and knowledge about how to restructure the day-to-day operations of the organization:

> The software…well, one of the advantages was that I also had contacts with the Panamerican Sanitary Bureau, so a lot of the software came [from there]…I also brought colleagues that I had gotten to know in the Panamerican Sanitary Bureau, a half dozen of them I brought here. They helped to perfect the system, and here, well, an institutional development program was implemented and they helped me to organize…the accounting part, the computational part, the billing.[30]

With the creation of SENDOS, professionals working on water and sanitation began to search for means to move away from a situation where the government was simply paying for much of the waterworks service out of pocket and toward a model where it would be possible to recover costs through water pricing and seek out external financing for additional investments in the sector. For example, between 1973 and 1979, when investments in the sector amounted to approximately US$186 million, 58 percent of overall investment was financed by Government grants, 38 percent by internally generated cash, and four percent by borrowing. By contrast, the new service would aim for water tariff rates and user payments to cover operation and maintenance costs, and eventually future investments, increasing rates by 160 percent in real terms between 1975 and 1980. In the early 1980s, the agency was also “actively seeking international financing,” had already received a US$7.5 million loan from the Inter-American Development Bank for rural water supply, and was “hop[ing] to meet 30 percent of its investment requirements in the 1980-1985 period by external borrowing” (World Bank 1980, 10).

SENDOS was developing as Troncoso and other managers had envisioned, and soon external funding would be forthcoming. For instance, plans for a proposed World Bank loan to the sector, the first for urban water and sanitation in the country, were under way in 1978. The

[30] Interview by author with Guillermo Ruiz Troncoso, Santiago, Chile. Also, according to a World Bank report (1980): “The Pan American Health Organization (PAHO) also provided assistance to SENDOS in 1978-79 in areas of financial and operational management” (9).

purpose of the project was framed in terms of "improv[ing] and exten[ding]…services to a large number of urban poor both in Santiago and in the Concepción region" and the "provision of basic infrastructure required to maintain sustained economic growth" (7). The World Bank and the Chilean government signed a loan agreement for US$38 million in 1980, with US$27 million to go to EMOS for the Santiago metropolitan region and US$11 million to go to SENDOS.[31]

The agreement, signed while Robert McNamara was president of the Bank, specifically discussed the possible impacts of the project on the urban poor and did not yet mention or stipulate privatization, which the government was already pursuing in other kinds of public enterprises under the guidance of the Chicago Boys. By the early 1980s, then, Chile had a new constitution and a new water code governing water resources. It also had a clear agenda with respect to public sector enterprises, which, as Pinochet emphasized in a 1981 address, "should either benefit the State directly, increasing national income, or indirectly, helping the population."[32] The pace and content of reforms was proceeding differently in different sectors, however, and in water and sanitation, the reorganization of the sector was under way but privatization was not yet on the horizon.

As part of Pinochet's policy program, which included a broad set of economic reforms, there would be two main rounds of privatization, one round from the mid- to late 1970s, and then another round from the mid- to late 1980s. During the first round, the military government returned enterprises that had been nationalized under Allende to the private sector and privatized some additional state enterprises. During this time, much agricultural land was reprivatized as

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[31] "The project was identified in November 1977 and was subsequently prepared by SENDOS and EMOS with the help of consultants and Bank missions. The project was appraised in November 1978, and post appraised in December of 1979…Negotiations of the loan took place in Washington from March 11 through 17, 1980…" (World Bank 1980, p. 11).

[32] Discurso Presidencial (Presidential Speech), "Discurso pronunciado por S.E. el Presidente de la República, General de Ejército Don Augusto Pinochet Ugarte, con ocasión del inicio del periodo presidencial establecido en la Constitución Política de la República de Chile del año 1980, 11 de marzo de 1981, Santiago, p. 10.

well. However, many traditional public sector companies remained in the public sector, including public services and infrastructure companies such as electricity (generation and distribution), telephones, steel, and railways, as well as large copper companies and the national petroleum company. Still, between 1973 and 1980, the number of public enterprises dropped from 596 to 48 and virtually all banks were transferred to the private sector. Social security reform would take place in 1981. Starting in the mid-1980s, another set of state enterprises would be privatized and shares of public enterprises would be sold to the private sector (Hachette and Lüders 1993; Marcel 1989), as the model of public service provision continued to shift.

In the early 1980s, as countries throughout the region struggled with recession, Chile also faced financial crisis, one of the toughest it had faced since the 1930s. The currency was devalued and popular discontent rose during this time, leading to major national protests in 1983, with the strong leadership and participation of the union movement, which led to another wave of repression by the military regime. Soon after, the government began to sell off shares in public enterprises that had been dependent on CORFO, and in in some sectors, service provision was handed over to private companies operating under concession contracts. For example, in the electricity sector, generation, transmission, and distribution activities all became privatized.[33] In some cases, specialized regulatory agencies were set up to oversee the process. The National Energy Commission (*Comisión Nacional de Energía*, created by 1978 law) and the *Superintendencia de Electricidad y Combustibles* (created by 1985 law) were set up to regulate and oversee the energy sector. Similar agencies were set up for gas and telecommunications. However, engineers told the administration the water and sanitation utilities were not ready—as one former EMOS employee put it, the expectation was also that "the better condition the

[33] Currently, the electricity sector is entirely privatized. In generation, there are over 20 companies participating, with the Endesa group, AES Gener, Colbún, and Suez Energy as the biggest players.

company was in, the better price it would go for"[34]—while unions made the argument that the military government should maintain these utilities as state owned enterprises for strategic and national security reasons.[35]

At the Eleventh Hour: Pinochet's Plans to Privatize City Water Services

According to several interviewees, Pinochet's government considered that inviting the private sector to participate in water and sanitation was the next logical step in the institutional development of the sector, though they did not have enough time to implement privatization before the democratic transition.[36] Pinochet conceded his loss in the presidential plebiscite, held as a national referendum on October 5, 1988, in which he had sought approval of the Chilean people for another eight years in power, and general elections were planned for December 14, 1989.[37] Nevertheless, Pinochet went forward with implementing a series of laws, summarized in Table 3.1, which would shape the future development of the water and sanitation sector. The set of laws included a general law on water and sanitation services (*Ley General de Servicios Sanitarios*), new laws on water rates and subsidies, laws authorizing the state to create "state corporations" (*sociedades anónimas*) for EMOS, ESVAL, and all of the regional utilities, and finally, a law setting up the agency SISS, the *Superintendencia de Servicios Sanitarios,* to

[34] Interview by author with SISS official, Santiago, Chile.
[35] Interview by author with FENATRAOS, Santiago, Chile.
[36] Interview by author with Guillermo Ruiz Troncoso, former head of SENDOS, February 2013, Santiago de Chile. Also interview with former SENDOS engineer, union members.
[37] "In the junta meeting, Pinochet was described as very angry and insistent that the junta must give him extraordinary powers to meet the crisis of the electoral defeat. He had a document prepared for their signatures authorizing this…At this point Matthei stood up to be counted. Matthei told Pinochet he would under no circumstance agree to such a thing. Pinochet asked again for special powers and again Matthei refused saying he had his chance as the official candidate and lost. Pinochet then turned to the others and made the same request and was turned down by Stange and Gordon. Tension in the room was so high that Bgen Sergio Valenzuela, the Secretary General of the government, collapsed from what turned out to be the first stage of a heart attack." Department of Defense Information Report, Chilean Junta Meeting. For US involvement in the plebiscite, see declassified documents from the State Department, Defense Intelligence Agency, and the CIA at the National Security Archive, George Washington University.

regulate and supervise the sector. The agency—staffed primarily by government bureaucrats, technical staff, and specialized professionals including engineers, economists, and lawyers—would be set up and running within a year.

Table 3.1. Chilean Laws Leading to Transformation of the Water and Sanitation Sector, passed in 1988-1989

Year	Topic	Decree/Law	Description
1988	General law on water and sanitation services	D.F.L. MOP No. 382/88[a] "Ley General de Servicios Sanitarios"	Defined rules to solicit and grant concessions in water and sanitation services, and the conditions for their execution
1988	Tariffs (rates)	D.F.L. MOP No. 70/88 "Ley de Tarifas de Servicios" Sanitarios	Established norms to determine the tariffs of each water and sanitation utility, emphasizing economic efficiency and financial self-sufficiency
1989	Subsidies	Ley No. 18.778 "Ley de Subsidio al Pago de Consumo de Agua Potable y Servicio de Alcantarillado"	Established a direct subsidy for urban users
1989	Business activities and *sociedades anónimas* (state corporations)	Ley No. 18.885, Ley No. 18.777	Authorized the state to develop "entrepreneurial activities" in water and sanitation, and to this end, to create state corporations (*sociedades anónimas*).[b] Law 18.777 transformed EMOS and ESVAL into *sociedades anónimas* and Law 18.885 transformed SENDOS regional utilities corresponding to regions I, II, III, IV, VI, VII, VIII, IX, X, XI, and XII
1990	Regulatory agency	Ley No. 18.902 'Ley de la Superintendencia de Servicios Sanitarios"	Created the SISS regulatory agency, establishing its structure and characteristics

Source: Compiled by author based on review of referenced laws in database of Chilean law and Biblioteca del Congreso Nacional de Chile (1998)

[a] D.F.L. refers to "Decreto con fuerza de ley," or "Decree with force of law." The abbreviation may be read: Decreto con fuerza de ley No. 382, de 1988, del Ministerio de Obras Públicas.

[b] Note that the general law on *sociedades anónimas* was passed in 1981 (Ley No. 18.046, sobre sociedades anónimas, 22 October 1981). The S.A. is defined as a juridical person formed by the creation of a common fund, provided by shareholders responsible for their respective contributions and administered by a directory integrated by members that may be modified. The S.A. is always commercial, even when it is formed to carry out business of civil character. When these companies were formed, all shares were held by the state.

The law transforming EMOS into a *sociedad anónima*, for example, specified that the government would still be the owner of the company, with 35 percent of shares held by the General Treasury of the Republic (*Tesorero General de la República*), and 65 percent of shares held by CORFO, the *Corporación de Fomento de la Producción*.[38] The enterprises would continue to prioritize self-financing and reforms to make the operation of utilities more efficient and cost-effective in order to extend coverage and finance investments in infrastructure. The National Association of Sanitary Services Companies (*Asociación Nacional de Empresas de Servicios Sanitarios, ANDESS*) was created in November 1990, with the mission of assisting companies in the water and sanitation industry to interact with the public and private institutions relevant to the sector and to fulfill goals related to economic development and environmental protection, including efforts to address water pollution.[39]

EMOS had been slowly changing as an organization since sector reorganization began in the late 1970s. For one, the staff had been gradually shrinking as the company increasingly turned to more flexible labor arrangements, hiring people on a consulting basis. Between 1977 and 1989, the number of permanent staff decreased by 1,222 people, from 2,900 to 1,678 staff members (Alfaro Fernandois 1991). Although privatization of the actual utility did not yet take place, private sector companies increasingly became involved as contractors and consultants that carried out particular tasks for the company. In 1989, the utility had been transformed into a state corporation (*sociedad anónima de propiedad del Estado*). The state held most of the shares via

[38] Ley 18.777, Article 4. 8 February 1989. Note that for the regional utilities, the proportion was 1 percent for the *Tesorero General de la República* and 99 percent for CORFO. See Ley 18.885, Article 4.
[39] "Quiénes somos," www.andess.cl.

the *Corporación de Fomento de la Producción* (CORFO),[40] which had 64.8 percent of total shares in EMOS, and the Treasury (*Tesorería General de la República*), which had 35 percent of total shares (Alfaro Fernandois 1991).

Transition after Dictatorship

In 1990, when Chile returned to democracy after more than sixteen years of dictatorship,[41] urban water services as well as water governance and related environmental problems were not especially high on the national political agenda. Patricio Aylwin, the newly elected president, had run against Pinochet's former finance minister, Hernán Büchi, and won, yet despite being backed by a broad opposition coalition composed of seventeen political parties, the country's political future was uncertain.[42] Pinochet himself—after conceding his loss in the 1988 plebiscite in which he had sought approval of the Chilean people for another eight years in power—voted in the election yet promised that he and the political right were still present and watching.[43] The democratic transition occurred largely based on terms set by the junta; it was what some scholars have called a "*transición pactada*," a transition by agreement. Pinochet became Commander-in-Chief of the army upon stepping down from power, and was guaranteed to become a senator for life after removing himself as head of the armed forces. The Amnesty

[40] The CORFO (*Corporación de Fomento de la Producción*), the Production Development Corporation was created in 1939, to assist the development of Chilean industry in line with the import substitution industrialization (ISI) policies of the time.

[41] During the initial years of the dictatorship and following the violent repression of political dissent following the 1973 coup, civil society mobilization remained fragmented and infrequent. In 1983, the first massive social protests occurring a decade into the dictatorship, marked a turning point for civil society groups. The pro-democracy movement grew out of discontent across many different sectors—working classes and middle classes, union leaders, intellectuals, professionals, women, farmers, and students. Despite some opening up of civil society spaces, both the newly democratized state and civil society groups did not actively work on environmental issues.

[42] In the 1970s, Aylwin had been critical of Allende's Popular Unity government and initially supported Pinochet's coup; however, he would later oppose the dictatorship and worked for the "No" campaign for the 1988 plebiscite. For excerpts from his speeches, see Retamal Avila (1990).

[43] For example, Büchi "vowed that the political right would be 'attentive in the defense of our vision of the future.'" Robinson, Eugene. 1989. "Aylwin Elected Chile's President." *The Washington Post*. 15 December.

Law protecting perpetrators of human rights abuses between 1973 and 1978 remained in place and the Council of National Security was created. Moreover, the binomial system of representation put in place by the regime maintained rightwing power in congress, making it difficult to change Pinochet's legislative and institutional legacy, including the 1980 constitution. The new government therefore had to operate in a highly constrained political space.[44]

Meanwhile, state-society relations were also in a state of transition, resulting in a situation in which there were initially few active challengers to the state. Under the dictatorship, mobilization had been restricted and the space in which civil society groups could organize was fragmented, yet mobilization attempts had also given rise to a set of newly vocal social actors including women and young people as well as "social, cultural, and religious groups born in direct response to subsistence needs and human rights violations and other government abuses" (Garretón M. 2001). Still, many activists that had been active in pro-democracy mobilization during the 1980s demobilized, while some leaders moved into positions in government, gradually shifting from their connections to grassroots struggles into their new responsibilities within the state administration. For example, Representative Muñoz recalls that during the dictatorship years, she worked as a leader in the feminist movement, with ties to grassroots women's groups and neighborhood groups, as well as clandestine ties to the socialist party. Yet when she became an elected representative, things changed:

> In March 1990 when I started in parliament, slowly I began to lose touch with the movement. First, because one paid attention to the citizens in one's district, in the *comuna* one represented…and it was full of *juntas de vecinos* and organizations, so I took responsibility to channel these citizens' demands. And also, because the social movements…they sort of went home. I don't know if they demobilized on their own or if it had to do with the ties with political

[44] Some features of the transition would gradually shift. For example, changes to the institutional features of the Supreme Court and a number of retirements in 1997-1998 diminished the legacy of the Pinochet regime in the judicial system.

parties, with the political class that was taking the reigns of rebuilding democracy…[the movements] became weakened.[45]

Some activists reflecting on that period recall that there was also a reluctance to organize and protest, partly out of a desire to protect the return to democracy and partly out of fear of disturbing a fragile political peace and provoking military intervention once again, a fear especially common among activists of an older generation.[46] As Hipsher (1996) points out, it was precisely during a moment when the "resurrection of civil society" (O'Donnell and Schmitter 1986) was expected to continue that movements restrained themselves. As a result, many of the government's actions and policy changes went forward with little social response even once the democratic transition had begun.

Even human rights issues were initially delicate. President Aylwin appointed the first truth commission, the National Commission for Truth and Reconciliation, also known as the Rettig Commission, after taking office in 1990. The Rettig Commission investigated primarily human rights abuses resulting in death or disappearance, while torture and other abuses that did not result in death were considered outside of the commission's formal mandate. The commission's final report, released after nine months of investigation, documented 3,428 cases of disappearance, killing, torture, and kidnapping. Human rights issues and reestablishing democratic institutions continued to dominate the national policy agenda, as political elites and civil society tread softly to protect their newly acquired freedom from the military regime.

As time went on and civil society groups reconstituted themselves, there was also much organizational soul searching. For example, Cesar Correa explains that there were two main

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[45] Interview by author with Adriana Muñoz, Representative, Cámara de Diputados, March 6, 2013, Valparaíso, Chile.
[46] Interview by author with Lucio Cuenca, OLCA, Santiago, Chile; interview by author with José Araya, Observatorio Ciudadano, Santiago, Chile.

reasons Chilean religious organizations did not pay attention to issues like impending privatization or environmental conflicts in this earlier moment. First, they were focused on human rights issues that had arisen during the dictatorship. Second, they were trying to find their new organizational identities as well as positions vis-à-vis other social movement and civil society groups. Whereas before, alliances had formed between religious groups and other kinds of groups on the basis of pro-democratization and the defense of human rights, the democratic transition presented new issues and exposed rifts among groups that had been allies. For example, as religious groups moved on to develop new agendas, the issues of abortion and choice became divisive despite common histories of the defense of civil rights and social justice during the dictatorship. In this sense, the 1990s were a tumultuous time of organizational soul searching within the realm of churches and religious groups, taking the focus away from broader policy changes that were taking place during the democratic transition. While civil society groups were reconstituting themselves and focusing on civil rights issues, many of the government's policies during this period continued and deepened the economic vision inherited from Pinochet's government.

Water and Sanitation in Santiago: EMOS, the Promise of Public Sector Enterprises, and Continuing Rumors of Privatization

With democratization, Raquel Alfaro became head of EMOS. The utility raised water rates by 70 percent between 1990 and 1994, but according to the organization's records, the rates were still relatively affordable despite the increases. The average bill was about US$8 per family per month, representing less than 3 percent of average family monthly income (and therefore

within the 5-percent-of-family-income amount recommended by PAHO). Along with pushing for higher rates, the government had also introduced a direct means-tested subsidy in 1989. The water subsidy scheme was to be administered by municipalities at the local level, following an annual process whereby the Ministry of Social Planning (Mideplan) would decide on the subsidy amount and allocate the number of subsidies to be granted by region. The idea was that every eligible household receiving a subsidy would receive a discount on the first 15 cubic meters of water per month.[47] A household would have to apply for the subsidy every three years.

Members of EMOS participated in revisions to the subsidy law carried out in 1992, which got rid of the limit of monthly consumption and incorporated differences in water and sanitation prices and monthly family income among the regions "so as to relate the subsidy amount with these two variables" (6). The utility also set up an EMOS Client Orientation Unit that would prepare posters and leaflets explaining how, when, and where to apply for the subsidy, with members of the unit meeting with the municipality's social workers and with special desks set up for subsidy enrollment in EMOS offices (Alfaro 1997). By 1995, coverage rates in the Santiago metropolitan region were higher than ever before: 100 percent for water connections and 97 percent for connections to the sewerage network.

EMOS and the regional water companies continued to make strides in extending water access and investing in infrastructure. EMOS significantly extended access to potable water and sewerage services in the Santiago metropolitan region. In the 1990s, the utility had attained such positive indicators that it became a model of public water provision among national and international experts.[48] For example, at an international workshop organized by the American

[47] According to one guide, "Water Metering: A guide for household customers," produced by South East Water, one cubic meter of water is roughly equivalent to 30 showers, 100 toilet flushes, or 10 loads of laundry.
[48] Interview by author with Claudio Lara, Universidad ARCIS, March 2013, Santiago de Chile.

Society of Civil Engineers (ASCE), the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), and the Coordinating Committee for Water Supply and Sewerage Institutions of Central America, Panama and the Dominican Republic (CAPRE), participants concluded:

> The Chilean experience has shown that it is possible to achieve high levels of efficiency in water supply and sanitation provision through public sector companies. Two of the prime elements in this achievement appear to have been: 1) strict standards for financial reporting, similar to those of private companies; 2) the establishment of a rigorous independent regulatory authority. Other elements seem to be a well-qualified staff, competitive salaries, company autonomy and accountability to directors, to owners (CORFO) and to the consumers...[49]

The model aspired to an 'entrepreneurial state' vision, combining public sector management with improved business practices. Speaking at an international conference, Raquel Alfaro, the head of EMOS, made the case for water remaining in the public sector:

> In developing countries, where resources are scarce, where the annual increase in the number of connections is high and many users' capacity to pay is low, *the state company*—which should grow in accordance with health and housing policies that the state implements, and which should concern itself with that fact that water and sanitation services effectively reach all households—appears to be the adequate alternative.[50]

The regional water utilities were also performing relatively well. As Figure 3.1 shows, by the 1990s, drinking water and sanitation coverage in urban areas of Chile was quite high. In 1992, several years before plans to go forward with privatization would be announced, the range of coverage for water connections was between 95 and 100 percent for all the regions, though rates for sewerage network connections and wastewater treatment were much lower.

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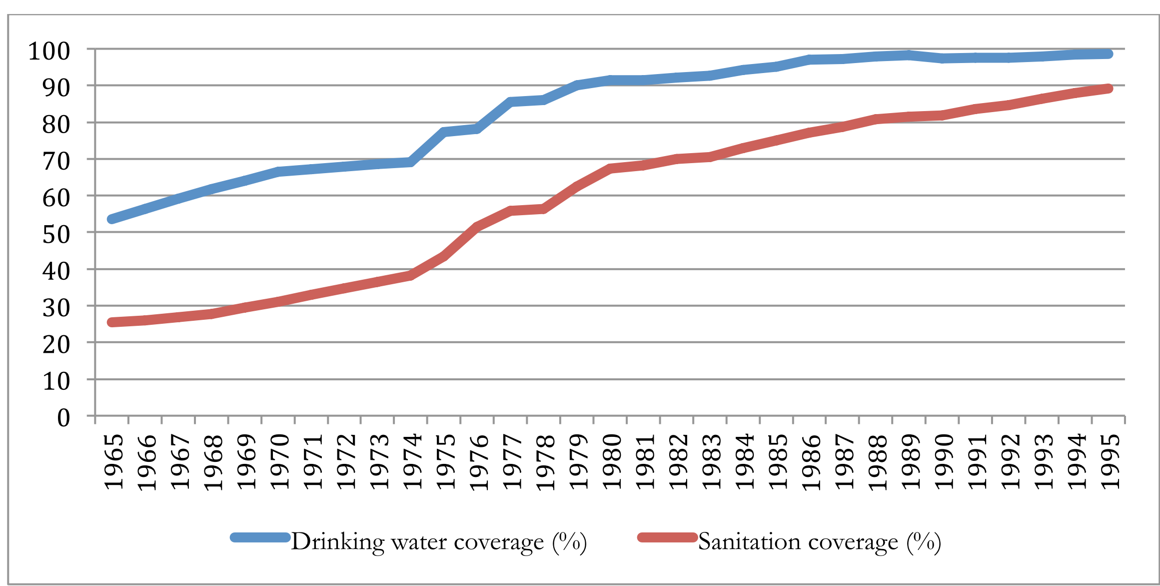
[49] Economic Commission for Latin America and the Caribbean. 1998. Report on the Second Workshop on Private Participation in Water Supply and Utilities in the Americas. San José, Costa Rica, 3-6 February 1998. LC/R. 1868 restricted distribution. Available at CEPAL library in Santiago, Chile.

[50] Alfaro Fernandois, Raquel. 1991. "Participación del sector privado en el sector obras sanitarias: El caso EMOS S.A." Presented at the *Foro Latinoamericano sobre Participación Privada en Saneamiento Ambiental* in Cali, Colombia. From the Papers of Raquel Alfaro, Gerente General EMOS S.A. Note she also talks about hiring private sector companies for the implementation of particular services.

Figure 3.1. Drinking Water and Sanitation Coverage in Urban Areas in Chile, 1965-1995



Source: Compiled by the author based on data published in SISS (1995)

Rumors would periodically circulate that privatization was imminent. In one internal memo for the technical commission on public works, the head of EMOS expressed her concerns about the discussions of privatizing the company:

> Is the private entrepreneur capable of receiving guidance from ODEPLAN and the various ministries? Or is it necessary to first strengthen a General Water Directorate or a Department of Hydraulic Resources in CORFO, to have clear policies guiding decisions? Is the *foreign* private entrepreneur conscious of Chilean realities…of its basic health and hygienic needs…of the limited capacity to pay of the poorest groups of the population and the need to make sure these groups receive service…of the need to give participation to the community, to educating users? Is the private and foreign entrepreneur aware that it's necessary to dedicate even *more* resources than are dedicated now to drinking water and sewerage? Is he aware that he has to invest, waiting with patience the reward for the investment?...That contrary to what is said today in Chile, drinking water continues to be a social good?[51]

The relative success of EMOS and other water companies and their plans for continued improvements made it all the more surprising that the center-left *Concertación* government under Eduardo Frei Ruiz-Tagle would decide to privatize the water companies in the mid-1990s.

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[51] Alfaro, Raquel. 1989. "Comisión Técnica de OO.PP., Subcomisión Institucionalidad del Sector Sanitario (Documento para discusión interna)." *Raquel Alfaro Fernandois: Principales Exposiciones y Escritos 1989-1993*. Unpublished collection.

Yet at the time, the government had identified "infrastructure deficits" and was looking for new sources of infrastructural investment across sectors ranging from roads and railroads to ports and airports. As Table 3.2 shows, the Ministry of Public Works sketched out projected investment needs in infrastructure for 1995-2000. Whereas roads constitute the majority of the required budget, water-related infrastructural investment comes in second place. The government decided that private investment was the way to go. To this end, the Ministry of Public Works created a program to promote public-private collaboration and implement concession contracts.

Table 3.2. Investment requirements for infrastructure projects, projected for 1995-2000

Infrastructure type	General investment (US$ million)
Roads and highways	4,250
Urban roads	2,000
Water treatment	1,480
Drinking water	950
Community equipment	810
Ports	450
Railroads	470
Irrigation	370
Airports	100
Rainwater management	200
Total	11,080

Source: Ministry of Public Works (2005), reproduced in:
Gobierno de Chile. 2003. *Sistema de Concesiones en Chile, 1990-2003.*

As a consequence of implementing the private sector participation program, the Ministry of Public Works (*Ministerio de Obras Públicas*, MOP) began to hire expert consultants and outsourcing some of its project work. Ministry officials saw a need to hire new "highly qualified" personnel with a different skill set, one with a marked shift from engineering backgrounds to business and finance. Whereas historically the MOP's investments relied on the expertise of

highly trained civil engineers, the new program required "financial engineering" that would design appropriate business models and calculate financial risk and return to convince investors and financiers to participate in the program. To this end, consultants were hired to promote the investment opportunities to domestic and foreign investors through "road shows" and seminars, and technical visits. As large international corporations became involved in infrastructure projects on an unprecedented scale, ministry officials felt pressure to have their own staff be in dialogue with managers and technical experts coming from abroad. The involvement of investment banks, investment funds, and insurance companies that worked with "concepts and expertise that were inexistent in the MOP" also prompted the shift. Finally, each project was twenty to fifty times the size of the traditional contracts MOP personnel was used to administering. The shift in the use of consultant work was substantial. For instance, whereas in 1990, the ministry had 7,938 employees and 23 consultants working on a contractual basis that worked with investments of US$253 million, by 2002, the organization had 8,026 employees and 1,187 consultants that together were administering US$1,221 million.[52]

In the water and sanitation sector in particular, members of Aylwin's administration were gathering information for potential future changes. For example, as Carlos Mladinic Alonso, the President of the *Consejo Directivo del SEP*, recalls:

> I remember that, at the beginning of President Aylwin's government, as Subsecretary of the Economy, I accompanied then-Minister of Public Works, Ricardo Lagos, and we made a tour of the major French water and sanitation companies, which at that time were the largest in the world. We had meetings with high-level people at these companies, to understand what kinds of advances were being made on the topic in Europe. And how private capital was being incorporated into the sector.[53]

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[52] Ministerio de Obras Públicas. 2003. *Sistema de Concesiones en Chile 1990-2003*. Santiago, Chile: Gobierno de Chile.
[53] Interview published in Biester et al. (2006), p. 107.

Privatization Begins: Transforming "Public Services of Vital Importance"

In May 1995, President Frei Ruiz-Tagle delivered a message to the senate, initiating the bill that would modify the legislative framework for the water and sanitation sector. He opened his speech by recognizing the public sector history of urban water utilities in Chile:

> Drinking water and sewerage production and distribution services, and the treatment of wastewater, constitute public services of vital importance for our country's inhabitants. Until the late 1980s, these services were provided directly by the State, within a partially decentralized public service framework. This form of providing water and sanitation services did not substantially differ from that used by other public services, such as electricity and telephones, where the state was the primary service provider. The State's direct participation in providing this and other services was based on their natural monopoly characteristics, the need to use significant subsidies on the supply side to develop large investments or increase coverage in areas with a low consumption density, in addition to the inexistence of adequate regulatory and mechanisms for direct subsidy affecting demand…To date, the development of the state companies has allowed them to offer service coverage to a substantial percentage of the population with reasonable tariff levels...

He continued, noting that legal institutional changes had taken place in the late 1980s that had put many public sector enterprises on the path to private sector participation. However, whereas the majority of other public services were transferred to the private sector immediately after the reform, more than 90 percent of the water utilities remained in the public sector. This was now going to change:

> The government has proposed as a goal that at the end of its term, 100% of the urban population will have water and sewerage service and that the percentages corresponding to wastewater treatment and rural drinking water coverage will substantially increase. The government's diagnosis is that to achieve the indicated goals, which not only demands investments of hundreds of millions of dollars, but also to undertake projects of greater technological and managerial complexity, private sector participation is necessary.[54]

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[54] Mensaje del Presidente de la República, con el que inicia un proyecto de Ley que modifica el régimen jurídico aplicable al sector de servicios sanitarios. Sesión 62, Legislatura 330. 9 May 1995. *Historia de la ley 19.549. modifica el régimen jurídico aplicable al sector de los servicios sanitarios*. Archivo del la Biblioteca del Congreso Nacional, Valparaíso, Chile.

Juan Eduardo Saldivia, who was at the time the head of SISS, the regulatory agency in charge of the water and sanitation sector, recalls the justification used by the government when he first arrived in his position as the superintendent:

> A decision had been made by the president of the republic, with two central dimensions. First, and most important, was to make a leap forward with respect to wastewater treatment. We are talking about the year 1996, when only three percent of wastewater was treated. And—from the point of view of the country's development model, oriented in economic terms toward international trade, along with the fact that Chile sought to become an agro-export powerhouse—the lack of wastewater treatment was viewed not only as a threat to national public health, but also to Chilean competitiveness in the international agro-industry markets. And because of this, the president decided that Chile needed to target investments to develop wastewater treatment systems.

Saldivia also explained that the composition of the government's portfolio of projects determined the extent to which the water and sanitation sector would be prioritized relative to other forms of government spending:

> ...the state had investment challenges in other important areas where...resources would be channeled to areas where there was no possibility of raising private sector investment...In public health, in education there were also planned reforms...gigantic investments were needed to remodel schools...there was a need for important state investments...and in the health sector, it was the same and more...Facing this, we decided that we will make up for shortages in the health and education sectors, but that in the production of water and sewerage services, it is possible to develop a model in which the state, as regulator and enforcer, transfers the obligation to invest and deliver the service to the private sector...[55]

The justification of financing water treatment plants would be a recurring theme. For example, Eduardo Arriagada Moreno, who was President of *Consejo Directivo del Sistema Administrador de Empresas (SAE)* in 1997-2000, recalls:

> …when the privatization process was discussed we were faced with the fierce opposition of the workers of all the utilities, and also, of parliament members on both the opposition side and the government side. They said it was not possible to privatize the utilities…that water belongs to all Chileans, and that a private utility providing services can't charge higher tariffs. Ultimately, there

[55] Interview by author with Juan Eduardo Saldivia, former superintendent of Superintendencia de los Servicios Sanitarios, the national regulating agency for the water and sanitation sector, April 23, 2013, Santiago de Chile; Biblioteca del Congreso Nacional de Chile, Historia de la Ley No. 19.549 que modifica el régimen jurídico aplicable al sector de los servicios sanitarios, 4 February 1998.

> was a mess that made it really difficult. But for us it was necessary to do it because if not, we could not treat the water, and we had the iron support of President Frei. He supported us absolutely…[56]

Still, there were discussions within the senate about particular changes.[57] For example, one point that would come up had to do with the decision to modify the legal requirement that the state would retain a minimum of 35 percent ownership in each water utility. For example, as one senator remarked:

> …it was established that a minimum of 35 percent of each company should remain in the hands of the State, with the right to veto regarding specific issues. This condition has been modified, authorizing sales higher than this percentage. This ruling is…a problem. Because we are not talking about a shirt factory, nor competitive activity. We're talking about a monopoly service, and therefore, we should shield and protect the user by a double procedure: comprehensive regulation through the *Superintendencia*…and with the presence of the State within each company.[58]

Frei's administration decided that it was possible to privatize water and sanitation, thereby raising revenue and freeing up spending for other priorities. Rather than expecting that privatization would make water and sanitation more efficient, it was rather the gradual development of state-run enterprises and a regulator in the sector that enabled the government to move ahead with transferring the utilities to foreign private firms.

Water treatment was also linked with public health and with pollution and environmental problems. Public health concerns became exacerbated by cholera outbreaks that caused a scare throughout the region beginning in 1991, when a cholera epidemic broke out in Peru, with 322,562 reported cases.[59] Brazil, Bolivia, Argentina, and Chile also had some cases reported, and though Chile had by far the fewest number of cases, the outbreak put waterborne diseases on the

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[56] Biester, Víctor Selman, Julio Cordero Díaz, Patricio Larraín Delgado, and Ricardo Salas Arancibia. 2006. *La modernización del sector sanitario en Chile*. Santiago: Sistema de Empresas (SEP).
[57] Senado, Legislatura 332, Sesión 27. 9 January 1996. Historia de la Ley No. 19.549, p. 233.
[58] Senado, Legislatura 332, Sesión 27. 9 January 1996. Historia de la Ley No. 19.549, p. 253.
[59] Interview with former SENDOS/current Aguas Andinas official, Santiago, Chile.

public agenda.[60] In a twist of logic, wastewater treatment, however, was nevertheless not treated as a public sector priority but rather explained as an issue affecting Chilean exports and something to be solved by private sector investment.[61]

Chilean exports were a key concern at this time. Chile concluded negotiations to establish a free trade agreement with MERCOSUR (joining Argentina, Brazil, Paraguay, and Uruguay) in 1996. The same year, the country set up an economic framework agreement with the European Union. Just a couple years earlier, it had joined APEC, the Asia Pacific Economic Cooperation forum. And around this time, President Frei Ruiz-Tagle was actively pursuing Chilean entry into NAFTA, having signed a trade pact with Canada in 1996 and begun discussions with Mexico shortly thereafter. When Frei Ruiz-Tagle visited the United States in 1997, he addressed a Joint Meeting of Congress where he proclaimed his support for Chile to join NAFTA, even though the process would eventually fall through:

> …our trade negotiations with the United States are of great interest to us, and we believe that they should advance to higher levels. As an individual country the United States has some 20 percent of our foreign trade, is our principal trading partner. In the last two years alone that trade has grown by over 50 percent…Before this Congress, let me reaffirm our interest in [the NAFTA] negotiations. We consider complete trade liberalization between Chile and the United States a natural step as well as an encouraging signal in the task of achieving free trade in the Americas, a process in which both our countries are engaged.[62]

In sum, trade considerations were an important contextual factor during this process. Foreign trade in Chile had more than doubled in less than decade, from $15.987 million in 1990 to

[60] Sanitarios, Superintendencia de Servicios. 1993. "Memoria Anual 1992." Santiago, Chile: SISS.
[61] Wastewater is used water (from households, businesses, and industry, as well as storm runoff) and wastewater treatment removes suspended solids and brings down the level of pollutants in the water to a manageable level before the water is released back into the environment. In the case of the Greater Santiago area, surface water being used in irrigation had received large quantities of untreated effluent, which is why agriculture was cited as a concern. Recurring risks for typhoid and hepatitis, as well as a cholera outbreak in the early 1990s were linked to irrigation water for fruits and vegetables taken from irrigation canals connected to the Mapocho River, the Maipo River, and the Zanjon de la Aguada.
[62] "Address by His Excellency, Eduardo Frei, President of the Republic of Chile." Congressional Record, House of Representatives, 27 February 1997. H672.

US$36.535 million in 1997, when it would account for almost half of GDP. Foreign investment had also grown, from US$1.46 million in 1990 to US$8.092 million in 1997.

While many accepted the diagnosis of needing water treatment plants, not everyone accepted the logic of the proposed solution. As one SISS official pointed out, it was unclear why EMOS, for example, was not allowed to borrow to make the necessary investments:

> It's true that we didn't have wastewater treatment. And it was said that a private investor had to come, but EMOS at that moment had zero debt…it could have incurred a debt to build the treatment plants, and the State didn't let it. In other words, the reason for the privatization, which was an economic reason, that the utilities didn't have capacity to invest or to carry out these programs, this was totally…it wasn't true.[63]

Nevertheless, Frei sought a change in the water and sanitation services law, authorizing the sale of up to 51 percent of shares of EMOS, which was ultimately passed with relatively little opposition in parliament.[64] EMOS was transferred to a Spanish-French consortium consisting of Aguas de Barcelona and Suez in 1999 for US$964 million, corresponding to 42 percent of shares in EMOS, along with the corresponding water-use rights to surface water in the Mapocho and Maipo Rivers as well as groundwater sources.[65] Newspapers proclaimed it as the "largest privatization in Chilean history," even bigger than the privatizations that had taken place with Endesa, Chilectra, CTC, and Entel.[66] The same year, Ricardo Lagos, a member of the Socialist Party who was Minister of Public Works under Frei, was backed by his party and the Christian Democrats as the *Concertación* candidate and won, becoming President of Chile in 2000. He would continue the implementation of privatization plans that had been started by Frei, though attempting to soften the transformation of the sector by moving away from divestiture and

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[63] Interview by author with SISS official, Santiago, Chile.
[64] Despite much debate, there were only two votes against the privatization.
[65] Embalse Yeso and Laguna Negra were the exceptions. Note that other bidders included the Consorcio Andes Sur Limitada, consisting of the British company Thames Water, the Portuguese company EDP, and the Spanish company Iberdrola.
[66] De la Jara, Antonio. 1999. "EMOS: La mayor privatización en la historia de Chile." *La Tercera*. 13 June. p. 29.

toward the concession model. Between 1998 and 2004, there were two major waves of privatization—in the first wave, water companies were sold to consortia, whereas in the second wave, private sector participation entailed 30 and 40-year-long concessions (see Tables 3.3 and 3.4).

As Roberto de Groote González, the head of the water and sanitation utility in the northern water-scarce region of Antofagasta, recalled about the process:

> It wasn't easy. As a utility (ESSAN S.A.), we lived through a double transformation: first, transforming what had been a public service into an enterprise, a thing which took us a rather long time, since with respect to some aspects like raising tariffs for consumers, we had a lot of difficulty in their application. In the region (Antofagasta), price increases for users were approximately 400%, which generated resistance among the public, social organizations, and political authorities. Second, preparing the utility to be handed over to the private sector, via a process of investment (management with investment) that would improve the quality of service and the value of the company.

At the end of this period, there were seven major groups of investors that controlled water and sanitation utilities throughout the country. The largest was the Spanish company Agbar, which had been acquired by the French company Suez. The second was Thames Water, from England. The third was the Grupo Consorcio, with a substantial Canadian presence. Finally, there were several Chilean groups, including Grupo Solari, Grupo Luksic, and Icafal-Hidrosan-Vecta. By 2005, almost 95% of the urban water services sector underwent some form of privatization.[67]

[67] The only municipally run water company is located in the *comuna* of Maipú, near Santiago. As a result, it has been discussed as a potential public sector model for other utilities in Chile. Yet note that it still depends on Aguas Andinas, which sells it a large proportion of its water, to supply the *comuna*, especially in the summer time, and all wastewater treatment is also handled by Aguas Andinas.

Table 3.3. First Wave of Privatization in the Chilean Urban Water and Sanitation Sector, 1998-2000

Year	Old Company	New Company	Privatization Type
1998	ESVAL S.A., Valparaíso, Region V	ESVAL S.A.	Divestiture (*Venta de paquetes accionarios*)
1999	EMOS S.A., Santiago Metropolitan Region	Aguas Andinas S.A.	Divestiture (*Venta de paquetes accionarios*)
	ESSAL S.A., Los Lagos and Aisén, Regions X and XI	ESSAL S.A.	Divestiture (*Venta de paquetes accionarios*)
2000	ESSEL S.A., Libertador General Bernardo O'Higgins, Region VI	ESSBIO S.A.	Divestiture (*Venta de paquetes accionarios*)
	ESSBIO S.A., Biobío, Region VIII		

Table 3.4. Second Wave of Privatization in the Chilean Urban Water and Sanitation Sector, 2001-2004

Year	Old Company	New Company	Privatization Type
2001	ESSAM S.A., Maule, Region VII	Aguas Nuevo Sur Maule S.A.	Concession
2003	ESSAN S.A., Antofagasta, Region II	Aguas Antofagasta S.A.	Concession
	ESSCO S.A., Coquimbo, Region IV	Aguas del Valle S.A.	Concession
	EMSSA S.A., Region XI	Aguas Patagonia de Aysén S.A.	Concession
2004	ESSAT S.A., Tarapacá, Region I	Aguas del Altiplano S.A.	Concession
	EMSSAT, S.A., Atacama, Region III	Aguas Chañar S.A.	Concession
	ESSAR S.A., Araucanía, Region IX	Aguas Araucanía S.A.	Concession
	ESMAG S.A., Magallanes y Antárctica Chilena, Region XII	Aguas Magallanes S.A.	Concession

Under the new system, private urban water utilities would produce and distribute water, as well as invest in water and sanitation infrastructure, leaving the state primarily a regulatory role. For instance, the rate setting process would work as a negotiation between the regulator (SISS) and each private water company, set up to simulate competitive conditions. Every five years, representatives from each private company propose a budget that includes a rate structure for the upcoming five years, whereas officials at SISS develops their own budget and rate

structure based on a “model company”[68] that emulates conditions of competitiveness in a sector that otherwise lacks them. The two proposals are then compared and negotiated line by line until consensus is reached. If there are strong discrepancies between the two proposals, the negotiation goes to an expert arbitration panel, typically comprised of three economists including one expert nominated by the government, another by the company, and another considered neutral.[69] According to the tariff act, passed in 1988, the model company method “was previously used in the electricity and telecom sectors in Chile and implies an estimation of costs for an imaginary company, working efficiently.” As water rates steadily increased, social subsidy schemes continued to be used to address low payment rates among low-income households.[70]

The agency SISS had almost a decade of experience and time to develop and strengthen its regulatory role before privatization would go ahead fully. As one SISS official who had been there from the beginning recalled:

> I think that [SISS] has had a stable presence, but I think the learning curve has been steep…At the beginning, a lot of things couldn’t get done...just imagine a company like Aguas Andinas serving the entire metropolitan region and just a few people here who really know the system…it was David against Goliath…but now people know the system well. It was necessary to prepare here in the superintendent’s office how oversight would take place and how everything would get done, and without a lot of knowledge, with one hundred people here in the early years and no one in the different regions. Now we are a staff of almost two hundred and there are regional offices throughout the whole country. You understand that it’s difficult to know from here in Santiago what’s actually happening in Temuco or Antofagasta...now we have more of a presence…the work has improved.

As Claudio Lara commented, another issue was that privatization also meant there was a “privatization of information” that led to “asymmetries” with respect to knowledge of what was

[68] The model company is defined in SISS methodology as a “service provider company designed with the purpose of providing water and sanitation services required by the population in an efficient manner, considering the regulations as well as geographic, demographic, and technological restrictions in which it must develop its operations.” See SISS 2006.
[69] Interview by author with SISS officials, February, 2013, Santiago, Chile.
[70] In 2005, seventeen percent of clients received a subsidy (SISS 2006).

going on, that made it difficult for SISS to perform its regulatory role.[71] SISS would also not always be in control of the privatized utilities' practices. For instance, Saldivia recalled a series of incidents in summer of 2002, when problems arose in a number of the utilities. In response to the incidents, the president had to intervene and order SISS to review billing for the prior six months, which undermined the regulatory agency's credibility with respect to oversight.[72] Yet for the most part, these moments of instability were met with adjustments as the transformation continued and became consolidated.

In this way, the state in Chile experienced a gradual shift from its role as a public service provider, to a service provider and entrepreneur, and finally to its role as regulator.

Between 1998 and 2008, the coverage of access to potable water increased from 99.3 to 99.8 percent, sewerage service coverage increased from 91.6 to 95.3 percent, and the treatment of wastewater increased from 16.7 to 82.6 percent. In other words, the increases to coverage of water and sewerage services under privatization were quite small, whereas wastewater treatment jumped significantly, as plants such as El Trebal and La Farfana were built and became operational.

Early Social Responses to Privatization: Unions Mobilize Alone

As the process of privatizing EMOS unfolded in the Santiago metropolitan region and throughout the country, unions attempted to mobilize and mount a public critique. Some union leaders reached out to other social groups, attempting to build an alliance to show that the water issue was backed by broad-based civil society interests, yet they had limited success in getting

[71] Interview by author with Claudio Lara, ARCIS, Santiago, Chile.
[72] Interview by author with Juan Eduardo Saldivia Medina, Superintendente de Servicios Sanitarios (1996-2006); interview transcript printed in *La Modernización del Sector Sanitario en Chile*, p. 114.

widespread support from neighborhood associations and consumers. As Víctor Navarrete, a union leader from the water and sanitation sector, who participated in mobilization to prevent EMOS from being privatized, recalls:

> We gathered more than 100,000 signatures, getting signatures from the communities. We went to the *comunas*, we went to the neighborhood associations (*juntas de vecinos*)...you know what people said to us? The people said to us, 'you all are just afraid to lose your jobs!' because there has always existed a concept in this country that public administration is lazy, but this company wasn't! Because this company generated revenue for the state, all the while retaining the capacity to forgive the debts of the poor...[73]

Along with layoffs of workers, some functions within the water supply system were to be externalized to third parties whereas others were automated to lower costs. Many workers negotiated severance packages and some union leaders took the option of buying shares in the new companies. Layoffs, externalization, and automation were not especially amenable to broad appeal to other civil society groups and the general public.

Nevertheless, multiple members of FENATRAOS, the National Federation of Employees in the Water and Sanitation Sector expressed opposition to the privatization policies, and attempted to "raise consciousness in the citizenry of the consequences" that privatization would have for the service and for users. They sought to speak out on behalf of the broader public interest, especially the potential consequences the privatization would have for poorer sectors of society:

> Water becomes treated as a simple market good, and ceases to be an essential right...where those who can pay the bill are called 'clients' and those who have their water shut off for debt are [put in the category of] 'irregular services' and supply themselves how they can. It is necessary to stress that for those who cannot pay, water that flows from nature ceases to be a right to a common good.[74]

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[73] Interview by author with Víctor Navarrete, Sindicato 1 de Aguas Andinas and FENATRAOS, April 2013, Santiago, Chile.

[74] FENATRAOS (Federación Nacional de Trabajadores de Obras Sanitarias). 2009. "Consecuencias de la privatización/concesión de las empresas sanitarias en Chile." PowerPoint presentation provided by Fernando Soto, Secretario, Sindicato 1 Trabajadores Aguas Andinas and FENATRAOS-Chile.

They also pointed out different dimensions of privatization, speaking critically not only about job loss but also a range of broader consequences. As Navarette put it, "What did the privatization mean? First of all, loss of our country's wealth...second, loss of a source of employment...and third, tariff increases for the citizens of our country."[75] Union leaders held assemblies in the metropolitan area throughout the regions to generate public interest in the issue, and contacted neighborhood organizations and other social movement groups, as well as holding targeted marches, sit-ins, and even roadblocks to draw attention to the issue. In Bío Bío, one of the country's central regions, social organizations even held a plebiscite on the issue with the support of regional political authorities, in which the vast majority of voters voted against privatization.[76] Yet despite these efforts, there was no sustained broad-based social response against privatization. In some cases, it was a lack of awareness and not seeing the relevance of the water privatization issue that dampened the interest in mobilization from groups that would later become involved in the broader movement around water resources. As Correa, a leader from a religious organization working on environmental issues put it,

> I think that we were very slow to realize...when Frei does all of that...there is a reconstruction and a fear of generating criticism for a model that was being put in place, to avoid coming back to what we had...dictatorship. So I think that things weren't carefully considered and we believed the discourse of the Concertación. I think that everyone believed the discourse of the Concertación that things were for the good of the Chilean people, and as we say here, they basically shot a goal from midfield, and we basically didn't realize it…*We didn't realize and these changes were put in place that we are now trying to reverse*.

Furthermore, though a subset of water and sanitation workers were critical of privatization plans, in the mid-1990s, the labor movement as a whole was not mounting a strong opposition to Frei's policies and had little influence. For example, in 1995, when several

[75] Interview by author with Víctor Navarrete, Sindicato 1 de Aguas Andinas and FENATRAOS, April 2013, Santiago, Chile.
[76] FENATRAOS (Federación Nacional de Trabajadores de Obras Sanitarias). 2009. "Consecuencias de la privatización/concesión de las empresas sanitarias en Chile." PowerPoint presentation provided by Fernando Soto, Secretario, Sindicato 1 Trabajadores Aguas Andinas and FENATRAOS-Chile.

thousand workers attended the official May Day celebration, Manuel Bustos, the president of the Central Union of Workers (CUT), the main labor confederation in Chile,

> …had to dodge a barrage of beer cans, apples, eggs and tomatoes from leftist workers who accused him of selling out to President Eduardo Frei's Christian Democratic government. "Sellout!" and "Christian Democrat worm!" they shouted at Bustos, who for the second year in a row was forced to cut his speech short. Radical labor factions accuse[d] the CUT leadership of being too soft in demanding a raise in the minimum wage--currently at $130 a month, a level that even some business leaders agree is pitifully low in a country with a booming economy. Social organizations from the southern area of Santiago held their first alternative May Day ceremonies...[77]

Unions pursued a dual strategy of appealing to other civil society groups to mobilize as well as lobbying legislators who were voting on privatization legislation. Yet neither channel led to the outcomes that the union leaders desired.

> When we marched on the Alameda...and various delegates and senators appeared to show their faces...But when the moment came to vote, none of those who had been with us supported our demands. They voted in favor of modifying the law.[78]

There is the general impression among union leaders that mobilization and lobbying yielded few concrete results, which some leaders attribute to the lack of interest within the political establishment and others attribute to the benefits that political elites receive from privatization. In general, few strong ties had been established between unions and the *Concertación* governments, and during this period union leaders had a difficult time finding institutional channels to influence government policies. Some labor leaders felt betrayed by senators and delegates who voted in favor, and continued to be wary of parliament members who would later reverse their positions and begin to speak out in favor of recovering water for the public interest.

Union leaders and members opposed to the privatization continued to critique the privatization, even as some of their former coworkers became laid off, others took severance

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[77] *Reuters* 1 May 1995.
[78] Interview by author with labor leader at FENATRAOS, April 2013, Santiago, Chile.

packages, and many went on to attempt to forge a new working relationship with Aguas Andinas and other privatized utilities throughout the country. Efforts to stop the privatization were not effective, but critics would remain vigilant, speaking out whenever problems occurred, such as arguing that companies tried to cut costs by spending less money on maintenance and backup plans, reducing the number of wells maintained in working operation and cutting the fleets of water tank trucks available to be dispatched in case of water shortages.

Rumblings of Discontent

The privatization process was virtually a fait accompli but the political climate in Chile would continue to shift, creating different opportunities for consolidating and questioning the new model. For example, while Michelle Bachelet served as president for her first term in 2006-2010, some of the first major social protests since the dictatorship took place, opening dialogue and critiques of Pinochet's institutional legacy, including the pervasiveness of pro-market ideas and market reforms across many spaces of Chilean society. Under President Sebastián Piñera in 2010-2014, conservative sectors found a more favorable climate. Under Piñera, for example, CORFO sold off 29 percent of shares in Aguas Andinas, EMOS's replacement, for another $983.8 million, despite criticism from organizations like the Chilean Water and Sanitation Workers' Federation (FENATRAOS) and NGOs like Chile Sustentable. As one Aguas Andinas official put it to me during an interview, this change had few real ramifications because CORFO would "put on the shirt of the company" when it participated in the meetings anyway, so it had not been there to "regulate" or "criticize anything."[79] In other words, the main source of

[79] Interview by author with Aguas Andinas official, January 16, 2013, Aguas Andinas offices, Santiago, Chile.

influence and oversight would have to be SISS, the regulatory agency, whereas having a government share of ownership in the company was not perceived to be consequential.

Occasionally, market logic would continue to expand, resulting in odd situations like Aguas Andinas' attempt to sell treated wastewater. Chile's Supreme Court recently heard the case of the irrigators' association of the Mapocho River against SISS.[80] Aguas Andinas, the utility controlled by the Spanish multinational Agbar and regulated by SISS, had announced that rather than returning wastewater treated by its facilities back to the river, it would initiate a program of selling this water to the highest bidder. After the major investments the company had made in wastewater treatment plants, this was one way to make some extra revenue. Irrigators along the Mapocho, however, were incensed. They relied on the water supplied by the river to irrigate their crops and had worked to secure water irrigation rights after the legal system of water ownership and use was overhauled with the introduction of the 1981 water code. These rights would mean little if the overall water supply—typically replenished by treated wastewater from the water utility—were to dwindle, leading irrigators to confront the decision of watching their crops wither or becoming the utility's first customers to purchase treated wastewater.

The plaintiffs argued that the utility was legally obligated to return the wastewater to the natural river flow, emphasizing that ownership of the water and sanitation infrastructure and the associated water rights did not mean ownership over water itself. Aguas Andinas and SISS countered that the company owns the wastewater that it collects and can dispose of it according to its own prerogative, citing that rights to potable water are consumptive and therefore do not technically need to be returned to the ecosystem,[81] and pointing to prior statements by SISS

[80] Junta de Vigilancia Río Mapocho/Confederación de Canalistas de Chile v. Superintendencia de Servicios Sanitarios (rol Corte Suprema 1419-2009).
[81] The Chilean Water Code divides water uses into consumptive and non-consumptive.

establishing that no existing legal norm obligates a company with a water concession to transfer treated wastewater to a particular destination.[82] The irrigators sharing the section of the river with Aguas Andinas, as well as those downstream, led the legal effort, while those upstream of the problem looked on but viewed themselves as remaining relatively unaffected. In parallel, the conflict led a group of legislators in the Chilean House of Representatives to propose a bill addressing the commercialization of treated wastewater, arguing that a water and sanitation utility provides services to users, without holding property rights over water itself. They used the opportunity to address an ambiguous issue in Chilean law, which seems to simultaneously sanction a form of property ownership and state that water resources in general remain in the domain of the state. The group of policymakers argued for the interpretation that "water is a national good for public use, and as such, belongs to the entire nation," meaning that the legislation does "*not* establish property over water" such that water and sanitation companies are "*not* owners of water" but rather provide a public service that allows them to charge a rate for the service provided (caps emphasis in the original). To date, the bill remains in the house.

Thus foreign private sector companies, along with a handful of powerful Chilean economic conglomerates, came to run the water supply and sanitation systems of almost all Chilean cities and the model became the new norm. Many of the foreign companies were multinationals based in Western Europe, the United States, and eventually, Japan. As this trend shows, the globalization of production is now also manifested in a phenomenon in which foreign private companies can be responsible for the provision of local public services outside of their countries of origin, which adds a transnational dimension to both water policy and the social

[82] "La guerra de los regantes del Mapocho," *El Mercurio,* 17 January 2011; Proyecto de ley relativo a la disposición de las aguas en concesión; Boletín N. 7583-09, interpreta el artículo 61 del D.F.L. N. 682, Ley General de Servicios Sanitarios, respecto a la comercialización de aguas servidas.

responses to institutional change in water administration. In Latin America, international experts had an especially important role in facilitating water privatization as part of a broader reform program favoring a shift toward pro-market policies. Placing the case of Chile in a comparative context, however, we see that whereas the influence of international organizations was present, elected government officials and national policy elites pursued and implemented water privatization in a context where many policymakers had already internalized the market paradigm as the guiding principle for public policy decision making.

Whereas privatization of water and sanitation utilities in urban areas became the new norm, Chile would continue to grapple with the institutional legacy of Pinochet's regime, especially as conflicts would arise among different users competing for fresh water in watersheds throughout the country. Many water utility professionals who had supported the privatization of public sector enterprises were concerned with applying market logic to water resources, especially in areas of water scarcity and epochs of drought. For example, an Aguas Andinas official reflected that one major problem has to do with cost: if a water utility has to purchase water-use rights in a scarce context, or to seek out alternative solutions like using a desalination plant to convert salt water into freshwater, it can be expensive, and the cost gets passed on to the customer. The situation is complicated by the fact that water utilities have to compete over water rights with users that have more resources, such as mining companies. Chile has faced an extended drought in recent years and water shortages in the north and center of the country. Government officials such as Loreta Silva, then Minister of Public Works, have emphasized this issue:

> The reality is pretty worrying. If we, as a country, do not face the challenge of creating new sources of potable water, in the end we'll have problems with the potable water supply from

> region VI [in the center-south of the country] northward, by 2024...Therefore, these are decisions that we have to make today in infrastructure.

To address this problem, the government proposed a plan to increase water reservoir capacity as a way to increase reserves, but technical solutions have thus far not resolved problems with respect to the allocation of water resources.[83] In the next section, I return to the question of social responses to the privatization of water utilities and their influence on outcomes, as well as how debates about the privatization of water utilities in cities became intertwined with a broader critique of managing the water commons in the country.

Emerging Movement around Water Resources: From Local Conflicts to Emblematic Cases

In April 2013, more than one hundred civil society organizations organized a national march for the defense of water in the Chilean capital. People came with signs protesting dam construction in the south, shouting about the effects of mining on small farming and the quality of drinking water in the north, and above all, with many messages declaring that freshwater should no longer be treated as private property and should instead be treated as a human right and managed as a public and community resource. This was the first national water march of its kind organized in Chile. At this point, the privatization of water resources had been in place for more than 30 years, since the early 1980s, and the privatization of urban water utilities had taken place in the mid-1990s, yet both had gone forward without widespread debate. So why did a national movement around the "defense of water" emerge when it did? How had water become political?

Prior literature on social responses to water privatization in South America has been defined by the Bolivian case of the "water wars" in Cochabamba, where social protest erupted

[83] Lagorio, Juan José. "Chile's water situation 'worrying,' minister says." *BNAmericas*. 17 October 2013.

swiftly and forcefully soon after water services were privatized (Assies 2003; Nickson and Vargas 2002; Simmons; Spronk 2007). By contrast, in Chile, the privatization of water and sanitation utilities was not enough to generate a broad-based alliance of civil society groups and a movement for the defense of water. However, water eventually did emerge as a common element that activists used to connect diverse environmental justice conflicts throughout the country. These conflicts encompassed not only water and sanitation issues but also mobilization targeting public and private sector companies in mining, hydroelectricity, big agriculture, and paper and pulp industries over their disproportionate power over water use-right allocation and the consequences of their activities for other water and land uses (see Table 3.5).[84]

Connecting these diverse conflicts with reference to their impact on water resources led activist groups to articulate specific local grievances in terms of a broader critique of the institutional legacy of Pinochet's dictatorship, which had designated water as private property at the constitutional level and rewrote the water code to facilitate the creation of markets in water titles. As part of this broader critique, groups demanded revisions to the water code, as well as constitutional reform and the declaration of water as a national good for public use (*bien nacional de uso público*). Groups also began to articulate the human right to water. While resulting in a national movement, these developments also gave additional power to demands being made by groups in their local conflicts.

One of the crucial stories that would lead to the emergence of a broader movement around water resources in Chile would begin in the *cordillera*, high above the water and sanitation networks of the cities; it would begin with glaciers. The topic of glaciers had become

[84] These conflicts typically have to do with land use and adverse impacts on adjacent communities. The most common cases had to do with the installation of industrial infrastructure and related production processes for mining and hydroelectricity, or with the conversion of land to more lucrative uses such as forest plantations or big agriculture.

especially salient because in 2000-2001, when the environmental impact study for the Barrick Gold project was released, it became clear that mining activities would be carried out in glacial and periglacial areas. In an internal discussion, when Barrick Gold was asked why they had not addressed the potential risks posed by this plan, they responded that they did not address it because Chile has no legislation on the books defining glaciers as a protected area and requiring them to do so. In the process of understanding the conflict in that particular case, especially the concerns of the people living below the planned mining activities in the Huasco River valley, the group involved began to discuss the problem and gather information about other related cases, where the issue of water continued to come up. As the discussions continued, the groups realized there were many environmental conflicts attracting public and political attention, and that it would be useful to both deepen their work on water legislation in Chile and to have a "connecting thread" for all of the discussion.

Table 3.5. Emblematic Environmental Cases in Chile

Case	Target	Grievances	Outcome
CELCO/Arauco	Pulp and paper industry	Threat of pollution affecting water supply; discharge of industrial effluent into coastal area affecting livelihoods of fishermen	Legal dispute and payment of damages for pollution
Barrick Gold/Pascua Lama	Mining industry	Threat of pollution affecting water supply of local residents, including farmers and indigenous communities; Lack of consultation	Legal dispute and suspension of construction activities in 2013
Hidroaysén	Hydroelectric dam construction	Destruction of local communities and natural environment; displacement	Legal dispute and suspension in 2014

In 2005, after sitting in Congress for fifteen years, congress members carried out a set of initial changes to the 1981 water code. First, as a result of the changes, the executive would be

able to intervene and stop water resources from being treated purely as market goods when it was necessary to protect the public interest. Second, the *Dirección General de Aguas*, before granting new use-rights over water resources, would have to take environmental issues into consideration, incorporating considerations not only of water quantity but also water quality. Finally, the modification introduced a fee that users who held water use-rights without using them would have to pay, in an effort to stem water use-right hoarding and speculation, and encourage users to possess the titles they needed. The reforms were backed by farmers, who had ended up in competition and confrontation over water-use rights with mining companies in the north and hydroelectric companies in the south.

Over time, water became identified as a common element with the potential to bring together different environmental justice conflicts. Water became the link that would enable activists from very different parts of the country working on apparently different sectors to talk to each other; it became a "hinge" (Abbott 2005). The major shift began to occur with the case of the Pascua Lama gold mine. As Lucio Cuenca, an activist leader from OLCA recalls:

> I'd say that starting with Pascua Lama going forward, there is a chain of events that begins to elevate the water problem in distinct places in Chile, water begins to be identified as a cross-cutting issue…In some cases, you talk about conflicts with the thermoelectric companies, but it has to do with the issue of water. You talk about conflicts with the cellulose industry in the south, and it's a water issue. You talk about the problems that the Mapuche population has with the forest plantations, and an important factor of that kind of conflict is the disappearance of water sources. So water, becomes a cross-cutting axis and…*it becomes identified as such*.

Water has served as a common element to unify many kinds of distinct environmental conflicts. For example, as Araya points out:

> I feel that within the topic of natural resources, water is just the resource that makes common sense to everyone…in many conflicts, water has really been a unifying force and that's why there are many coordinating spaces about water and platforms to work on the issue of water, more so than for other topics related to natural resources…[For example,] in the south, no one works on the issue of mining. It is hard to find a person working on mining, but you *are* going to find, as

> much in Arica [in the far north] as in Punta Arenas [in the far south], someone who is concerned about water…looking at it this way, it is like the right to life. That's why I think this slogan, that water is life, is so classic, it's a common-sense thing, in the most basic sense…I think it is like this great consensus that we have now and that's why water is a space that draws things together.

Mobilizing around water resources as opposed to the narrower issue of water utility privatization has also opened up a series of broader critiques that are available to movement participants than were credibly available to the unions who attempted to protest water utility privatization. As one leader from the northern region of Calama put it:

> …water in the desert is a vital element, which is going to help generate social mobilization to resist…because *legality* is one thing, but we believe that *immorality* is another thing, and we believe that we have the right to live in a clean environment, and we have a right as well to defend its water resources. *It's a right*. We don't think that what we are doing…we're not doing anything because it's trendy. We are doing something because it interests us, because it worries us, and because we want all residents of Calama…for us to defend our resources…and the Loa River is the main one we have…also the aquifers, and tributaries that feed into the Loa, like the Salado River, the San Salvador…[85]

Luis Soto, a leader from MODATIMA describes water problems in his community:

> The communities receive drinking water from water trucks, which means that they don't have good pressure neither for heating nor for washing, among other domestic uses. The rural workers are also affected, they see water thefts occurring, they see rivers drying up that before allowed them to live off agriculture. These are things that don't happen in Zapallar and Cachagua, because they are of another class, that are part of the province of Petorca, but that's where the rich and corrupt politicians have their summer homes.[86]

The movement organizations involved in the issue of water have used social protest to make the movement and their demands more visible. To this end, they have organized countless regional and local demonstrations related to particular conflicts and have organized national marches every year since the one held in 2013. At the same time, water activists have also found spaces within the state to voice their grievances, such as within special public hearings held by delegates from the *Cámara de Diputados*, and they have also sought to influence the trajectories

[85] Interview by author with Carlos Ossandón, Coordinadora Defensa Río Loa, November 23, 2012, Santiago, Chile.
[86] Interview with Luis Soto. *El Ciudadano*. 22 April 2014.

of particular cases by filing court cases or making appeals to ministry officials. Movement organizations finally began to get traction once they established that this situation was a feature of Pinochet's institutional legacy, providing them with an opening to critique the legitimacy of the law and to call for its complete overhaul.

Conclusion

In sum, in the Chilean case, the treatment of water as an economic good had its origins in the institutions set up by Pinochet's authoritarian regime, though the political move to privatize urban water and sanitation services was made a decade into the democratic transition. Interestingly, even though lack of efficiency is accepted as a common explanation in the privatization of public enterprises, in the Chilean case, it was precisely the fact that urban water utilities were already high performing and had attained relatively high rates of coverage prior to privatization that helped to justify their sale. Meanwhile, civil society responses, while exhibiting some of the characteristics we might expect based on existing literature, have not been nearly as explosive as the typically studied case of mobilization around water privatization in Bolivia and elsewhere. When initial mobilization around privatization led by unions and some civil society allies led to little public support and few changes in the outcome of the privatization process, the issue became dormant for another decade, only recently experiencing escalation as part of a broader protest cycle critiquing the effects of the neoliberal model across a range of policy domains and specifically a movement mobilizing around the treatment of water as private property in the country.

CHAPTER 4 A Failed Experiment in Argentina: Private Service Providers, Local Activists, and the Return of the State

In Buenos Aires, the downtown office of the new public sector water utility serving the metropolitan area is housed in an ornate building called the *Palacio de Aguas Corrientes*, the Palace of Flowing Waters.[1] The building, which was constructed in the late nineteenth century at the intersection of the Córdoba and Riobamba avenues, is one of the architectural symbols of the city. A statue of a water and sanitation employee in uniform sits on a bench out front as visitors walk past. The main section of the building is filled with clerks at their desks and people queuing in line to make inquiries about their utility bills, but the palace also houses the Museum of Water and Sanitation History[2] and an historical archive documenting the rise of the state organization at one point responsible for water and sanitation throughout the entire country, the *Obras Sanitarias de la Nación* (OSN).

The OSN was created in 1912 to take over the existing commission on public health (*Comisión de Salubridad*), several years after the first national plan for sanitation was written in Argentina.[3] The organization was tasked not only with expanding water and sewerage services in

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[1] The building is also called the *Gran Depósito Ingeniero Guillermo Villanueva*, in honor of the engineer who was president of OSN's predecessor organization from 1900 until 1911 (and who also served as Minister of Defense, then of War and Navy, in the late nineteenth century).

[2] Even the museum itself became an object of the transition between the public and private companies. In 1996, Aguas Argentinas opened the new museum as part of its "Historical Heritage Program," building on the collection of the OSN's *Museo Técnico de Artefactos*. See: Aguas Argentinas. 2003. "Programa Patrimonio Histórico: Responsabilidad social corporativa, Becas y Actividades de promoción cultural y artística." edited by Aguas Argentinas. Buenos Aires.

[3] The first National Plan for Sanitation was written in Argentina in 1909. In 1912, *Obras Sanitarias de la Nación* was created to implement it (*Ley 8889*, 18 July 1912). (Note: President Roque Sáenz Peña was in power. This was also the year male universal suffrage was granted.) By 1912, there were approximately 900,000 people living in the city. Meters were not universally installed in all houses. OSN also incorporated industry and workshops, such as those working with iron, lead, and bronze smelting. Between 1910 and 1918, a major gap grew between water provision and wastewater treatment services.

Buenos Aires, but also with providing technical and financial assistance to cities in the provinces, as the state took on full responsibility for the provision of drinking water in cities and towns throughout the nation. In Buenos Aires, the organization would carry out new works such as putting in infrastructure for water intake in the Río de la Plata, distribution facilities in Caballito and Villa Devoto, developing the Palermo purification plant, and even building the first factory to produce coagulant.[4] OSN also carried out studies of water and sanitation needs in the provinces and built on the construction efforts already begun by the commission in distant provinces like Salta and Jujuy, La Rioja and Mendoza, Santiago del Estero and Corrientes, as well as nearby in Santa Fe (Rey 2003).[5] Along with railroads (*la Administración de los Ferrocarriles del Estado*), the OSN was one of the first two major public sector enterprises created in the early twentieth century and considered a major infrastructural achievement (Regalsky and Salerno 2008). As *Obras Sanitarias* built and extended water and sewerage connections, incorporating households and businesses into growing networks in cities throughout the country's territory, it came to symbolize an element of the broader state project of building a strong public sector that would develop hand in hand with increasingly organized workers and a growing technical state bureaucracy, a project that would continue to grow under Juan Domingo Perón in the 1940s.

Aside from a period earlier in Argentine history when British investment was a prominent feature of the economy and a British private company ran the water utility in 1889-1891 (Regalsky 2010), the public sector was responsible for providing water and sanitation

[4] Bodenbender, Otto E. 1953. "El abastecimiento de agua potable en la República Argentina." *Revista de Obras Sanitarias de la Nación.* Año XVII, No. 150.

[5] See *Ley 3967* (in 1900). There were also already waterworks systems in the provinces of San Juan, Catamarca, and San Luis. In 1919, *Ley 10.998* authorized OSN to study and construct water and wastewater systems in all cities in the country that have more than 8,000 inhabitants.

services to the Argentine capital since the late nineteenth century until the privatization of *Obras Sanitarias* in the early 1990s.[6] This most recent thirteen-year episode of privatization of the water utility serving the Buenos Aires metropolitan area began in the early 1990s as Argentina implemented the policies of the "Washington Consensus" and radically cut back the public sector, inviting multinational firms from abroad to take over the provision of water and sanitation, which led to the replacement of OSN with Aguas Argentinas. The episode came abruptly to a close in 2006, accompanied by many similar false starts and reversals of urban water utility concessions in the provinces.

Today, after the experiment that replaced OSN with the private sector utility *Aguas Argentinas* and the early termination of the concession, the new state-owned water company *Agua y Saneamiento Argentinos* (AySA) is located in the waterworks palace once again, and the customer service centers have been subtly renamed centers for attention to "users" of the service as opposed to "clients." AySA proudly traces its lineage to *Obras Sanitarias de la Nación*, with placards on display in the museum that state "From OSN to AySA…" as if Aguas Argentinas never happened. Yet at one point the Aguas Argentinas project in Buenos Aires was called the "largest concession in the world" by international water experts and was put forward as a potentially decisive example for introducing the privatization of water and sanitation services throughout Latin America, an example that was presented as an experiment that would shape subsequent attempts to privatize the sector, especially in other major urban areas where entire neighborhoods still lacked connections to running water and sewage disposal.

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[6] The first post-colonial public water supply system in Argentina started to operate in Buenos Aires in 1869. There had been a major cholera outbreak in 1867 that killed thousands of people, and in 1871, the population was hit with a yellow fever epidemic. In 1887, a concession was granted to the *Sociedad Anónima* 'The Buenos Aires Water Supply and Drainage Company' for 39 years, but in January 1891 the contract was rescinded. During the late nineteenth and early twentieth century, until World War I, Great Britain (other European countries were also present, as was the US, but Britain was disproportionately represented) had invested heavily in Argentina and also received many Argentine exports.

How did water and sanitation become privatized in the Buenos Aires metropolitan area? And why did the concession that was envisioned to last thirty years and beyond—according to its advocates, offering an alternative model of providing an essential service to a massive and growing urban population—collapse after thirteen years? In this chapter, I analyze how the decision to privatize water and sanitation services in Greater Buenos Aires was implemented. Though virtually the same set of multinational private firms would lead the effort in both countries considered in this study—the French company Suez was the majority shareholder in both Santiago and Buenos Aires—and the regulatory arrangements that were envisioned, modeled on the British case, were also similar, the two cases proceeded along quite different paths.

As I will show, in contrast to the gradual transformation of EMOS in Santiago and other Chilean urban water utilities while they were still in the public sector, and their somewhat surprising sale and transfer once relatively high performance indicators had already been achieved on all but wastewater treatment plants, Argentina's system privatized from a position of weakness rather than strength. The changes moved forward rapidly after decades of underinvestment in the system, which was felt especially in the southern and western neighborhoods of Greater Buenos Aires, above all in peripheral areas on the edges of the city and the *villas* where access to water and sewerage services was lacking. Although much effort was put into making the design of the concession contract appealing to foreign investors, the new model of water service provision proved to be ill-suited for implementing the changes necessary to improve the conditions of the water and sanitation network. Furthermore, whereas the government prioritized the promise of low rates when evaluating bids for the concession, aware

that a significant proportion of current and future users were living in poverty, the company that won the bid would soon begin to change their financial projections and unplanned rate revisions began to plague the implementation of the contract within a year of the start date.

The macroeconomic context was also complex. Whereas Chile had experienced hyperinflation during the mid-1970s, Argentina suffered one of its worst hyperinflationary periods in the late 1980s during the democratic transition, reaching an average annual rate of change of 750 percent in the consumer price index by 1989, which would lead the country to set up a currency board and peg the peso to the dollar. While Chile's privatization was driven and justified in part by the decision to seek more integration into global trade, Argentina was under immense international economic stress and on the brink of default from transnational financial obligations, leading the government to declare a state of emergency and to begin to privatize many public sector enterprises simultaneously and with little preparation, in the case of water and sanitation, setting up regulatory agencies at the same time that concessions were being granted. The privatization of water and sanitation therefore took place at this moment of crisis, as dozens of state-owned enterprises were transferred out of the public sector or liquidated, with the convertibility plan in place and additional mechanisms such as bilateral investment treaties introduced to protect foreign investors. In 2001-2002, the country would face financial crisis again, accompanied by falling standards of living, mass social protest and the government's loss of political legitimacy, which would heighten existing problems with the concession and lead it to a breaking point.

The policy discourse, the work of expertise, and the involvement of consumers and civil society groups were also quite different in the two cases. Whereas multilateral lenders like the

World Bank and the Inter-American Development Bank provided loans to the water and sanitation sector in both countries, World Bank consultants and representatives of international financial organizations were more directly involved in Argentina and in setting up the Buenos Aires concession; they were involved even in developing the bidding documents. Unions were also involved in the discussion and ultimately went along with the privatization, at least in its early years. At the same time, consumers, neighborhood associations, and civil society groups expressed grievances throughout the process, both within the institutional spaces created by the regulatory agency and other state organizations such as the ombudsman's office, and through instances of targeted mobilization such as small demonstrations outside the offices of Aguas Argentinas, non-payment campaigns, roadblocks, and general demands for expanded access to water and sanitation services in their neighborhoods made to the state and the private sector. These demands only intensified during the crisis as massive social protests broke out in the capital and throughout the country in response to austerity measures and the economic policies of the 1990s. In Chile, by contrast, privatization and other market-oriented ideas had been incorporated into the fabric of the state earlier as a result of the lineage of the "Chicago Boys" under Pinochet, ideas that gradually continued to permeate and extend across areas of Chilean policy and to guide policymakers during the democratic transition. There, unions had mobilized about the privatization of utilities with little support from consumers and other civil society groups until a broader movement critiquing Pinochet's institutional legacy and the commodification of water resources emerged years later.

In Greater Buenos Aires, as in many other parts of Argentina, the concession contract of the privatized utility was ultimately rescinded and the case went to court and into international

arbitration. The failure of the concession meant not only that the private company withdrew from its role in providing water and sanitation services, but also that the entire model—whereby the private sector operated the utility and invested in the expansion of infrastructure and quality of services while the state took a back seat as regulator—was thrown in flux and had to be replaced. President Néstor Kirchner's government stepped in and created a new public sector company for Greater Buenos Aires, Aguas y Saneamiento Argentinos (AySA), which began to actively expand the water and sanitation network with a clear emphasis on addressing inequality in water and sanitation access, under the banner of "water for all" (*agua para todos*) and often using the language of the right to water, contrasting its priorities to those of the privatization era, with occasionally populist undertones. The utility introduced a program called "water plus work" (*Agua más trabajo*), whereby worker cooperatives could be formed, trained, and contracted to construct part of the water and sanitation infrastructure in neighborhoods that lacked connections, providing temporary employment and job skills along with increased access. The privatization quickly became a contentious episode which many of those involved, on both sides, would recall with much emotion and strong opinions, and which, along with many other water privatization failures, would lead the World Bank and other international organizations to scale back their promotion of the privatization paradigm and particular recommendations such as full cost recovery. At the same time, the failed privatization experiment had the unexpected effect of focusing government attention on improving water and sanitation services in a way that had not happened in Argentina in decades—which, coupled with post-crisis economic recovery under the Kirchners—led to a new wave of public sector investment and improvements to the water and sewerage system.

The chapter proceeds as follows. I begin by analyzing the conditions under which privatization in water and sanitation was introduced and how the new paradigm about organization in the sector was implemented. I then show how a combination of internal factors—such as recurring tensions between the state and the utility over issues like contract renegotiation, rates, and the pace of infrastructure investments, combined with dissatisfaction and protest by neighborhood and consumer groups—and external factors, such as the 2001-2002 financial crisis, the devaluation of Argentine currency, and the political instability that resulted, led to heightening conflict between Aguas Argentinas and the Argentine government, eventually leading to the breakdown of the concession and its replacement by the new public sector water company AySA.

The Early Years: *Obras Sanitarias de la Nación* under Perón

Any story about Argentina involves a story about Juan Domingo Perón. Perón rose to power as a prominent figure within the military government of 1943-1946, during which he became Minister of Labor and began to actively forge ties with labor leaders, organize workers, and promote workers' rights. As a result of conflict within the regime, Perón was demoted and briefly imprisoned, only to have his supporters demonstrate, calling for his release, and would emerge as a prominent candidate in the presidential election as the country moved away from military rule. Once elected president, Perón introduced social policies such as increasing social security coverage and health care, as well as enforcing minimum wage laws and taking other

measures that led to increases in workers' incomes, solidifying a set of ties between the workers and the Peronist left that would shape Argentine politics for decades to come.[7]

During Perón's first presidential term from 1946 to 1952, *Obras Sanitarias* continued to develop as a state-owned enterprise, coming to have an even stronger and more visible role which was consolidated as the country prioritized building its public sector, implemented a range of social policies oriented toward workers and the poor, and shifted away from an export-oriented development model toward an era of import substitution industrialization (ISI). In the organization's monthly bulletin, for example, an article appeared the year that Perón came to power, drawing a sharp line between the objectives of public and private enterprise, and outlining why state-run public services were necessary in water and sanitation:[8]

> The concept that public services, and particularly those of vital importance for the people, should be offered or administered directly by the State, is affirmed primarily by the fact that the organizations of government, set apart from the profit-seeking dimension that constitutes the fundamental objective of private companies, are able to establish reduced rates and tariffs and to contemplate their improvement…without the concern that necessary investments yield financial interest in the short run.

The article, which appeared in the opening pages of the magazine, went on to point out that unlike the concessionaires, which were more interested in short-term speculation, the state-run service was in the best position to satisfy not only the "minimum" needs of its users, but to comply with the obligation "to keep a long-run perspective" and to constantly improve the system, keeping up with demographic and social changes in the urban area being served. Parts of the article, written in the 1940s, would begin to sound familiar once again in the post-privatization moment of the 2000s:

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[7] In 1948, Perón created the *Secretaría de Educación de la Nación.* In 1953, the *Universidad Obrera Nacional* was created.

[8] OSN. 1946. "Los servicios públicos a cargo del estado." *Revista de la Administración Nacional del Agua*. Año X. Núm. 109, p. 1. [Note that the OSN was briefly combined with the irrigation ministry after Perón came to power, into a single *Administración Nacional del Agua*—hence the different name of the bulletins—but, OSN later became a separate organization once again.]

> In a past epoch, it was common to hear of the prejudice that the State lacks the capacity to correctly and economically administer public services, which brought about the granting of concessions to private companies to look after services that, due to their essential character, should be the responsibility of government…it is good to affirm that these days, this prejudice no longer exists…Policies tending toward returning public ownership of public services is affirmed in our country in ponderable examples…this very Administration which, established…as a modest government organization, upon rescinding the contract of the company that had undertaken the construction and development of water and sanitation services in the city of Buenos Aires…today constitutes one of the largest and most accredited technical organizations of the State.[9]

The argument about state-run services in water and sanitation did not turn out to be pure rhetoric. Within two years, the waterworks in Rosario province, which were still being administered by a British company, were nationalized with much fanfare, and with the government making reference to "economic independence" and "national sovereignty."[10]

During this period, in almost every issue of its regular bulletin, the OSN published an announcement of the advances that the Peronist government was making in the area of water and sanitation. The government was, in fact, making substantial efforts to expand access to water and sanitation both in peripheral urban areas and in the provinces. For example, a major part of the sewerage network, the "Tercera Cloaca Máxima de la Capital Federal" was constructed to meet the demands of the growing city of Buenos Aires and its periphery.[11] Perón's wife, María Eva Duarte de Perón, who came to be known as "Evita" and formed an important part of the government's relationship to popular movements and the working class, was often personally involved in public ceremonies marking the extension of water services. For example, Evita was there to inaugurate the extension of public water works to the Lomas de Zamora neighborhood, and photos of her at a water works opening ceremony in Avellaneda in Greater Buenos Aires

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[9] OSN. 1946. "Los servicios públicos a cargo del Estado." *Revista de la Administración Nacional del Agua: Publicación Mensual Informativa y Técnica.* Año X. Núm. 109.

[10] OSN. 1948. "Nacionalización de los servicios sanitarios de Rosario de Santa Fe." *Revista de Obras Sanitarias de la Nación.* Año XII, Núm. 126, p. 333.

[11] OSN. 1949. "Habilitación de la tercera cloaca máxima de la Capital Federal." *Revista de Obras Sanitarias de la Nación.* Año XIII, Núm. 131, p. 83.

appeared in the OSN bulletin. The populist approach was not limited to the construction of public works; for example, Perón's *Administración Nacional del Agua* made plans to build neighborhoods for its employees and workers, in neighborhoods like San Isidro, constructing housing for "families with limited resources" and incorporating more Argentine citizens into a direct relationship with the state.[12]

The national government directly financed much of the cost of expanding services during this period, but there were nevertheless continued efforts to generate revenue, using tariffs to maintain the system. For example, the government decided to implement rate increases of approximately 50 percent to address the "economic difficulties originating in the imbalance between the cost of services and the…rates," though it promised to do so "prudently."[13] Such developments were not limited to the capital, as the government worked to improve water and sanitation infrastructure and extend the reach of the state throughout the provinces. As OSN officials passionately declared in one announcement:

> In past epochs, the distant territories of Patagonia, despite their contribution to national wealth, did not receive adequate attention to the indispensable works for wellbeing and progress of its hardworking people and the development of its rich soil. To right this unjust oversight, the Revolutionary Government has included in its plan of national recovery a program of important public works for the territories of the south…which include urban sanitation, especially the provision of drinking water which is the principal and most urgent necessity of these distant Argentine regions.[14]

Until the middle of the twentieth century, the organization lived its glory days, during which it received extensive attention and support from the government, water services were developed in cities throughout the country, and Argentina gained the second highest coverage

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[12] Fornari, Osvaldo C. and Odilo J. Basso. 1945. "Viviendas para empleados y obreros de la Administración Nacional del Agua. Barrio San Isidro." *Boletín de la Administración Nacional del Agua*. Ministerio de Obras Públicas. Año IX, No. 95, p. 348.
[13] See p. 104, this happened in 1947; tariffs would be revised again in 1950.
[14] OSN. 1949. "Obras de saneamiento urbano en territorios de la Patagonia." *Revista de Obras Sanitarias de la Nación.* Año XIII, Núm. 132, p. 1.

rate on the continent. By the mid-twentieth century, the civil sanitary engineering profession had gradually developed and grown as well.[15]

An Era of Instability

Evita died in 1952 and Perón served a second presidential term from 1952 until 1955, when his relationship with the military and the Church gradually worsened and he was overthrown by a coup and went into exile while Peronism was banned and replaced by the "Liberating Revolution." During the decades that followed and before the latest dictatorship that led to the Dirty War, Argentina would see two military regimes (in 1955-1958 and 1966-1973), two democratic governments governed by the Radicals (1958-1962 and 1963-1966), civil conflict (in the early 1960s), and the return of Perón and the Peronists (1973-1976). During this epoch, hard lines were drawn between Peronists and non-Peronists, a Peronist Resistance emerged, and tensions developed among different Peronist factions, including guerrilla groups that became active during the 1960s and the 1970s. By 1971, plans for democratic transition were being made once again and elections were held in 1973. Perón returned from exile, ran for election in 1973, and won, though he died the following year and his third wife, Isabel Perón, took over the presidency (Romero 2013). Meanwhile, the OSN continued to maintain the water and sanitation infrastructure, but problems in the water and sanitation system in cities had begun to manifest themselves between 1950s and 1970s. In the Buenos Aires metropolitan area, little attention was paid to the existing pollution and deteriorating water quality in the Riachuelo, Lujan, and Reconquista Rivers. Formal coverage rates declined as the population on the periphery of Buenos Aires grew but extensions to the networks did not keep up, and people with

[15] See books by Trelles, especially *Ingeniería sanitaria en la República Argentina* (1982). Trelles was the President of the Comité de Dirección of the Revista de Obras Sanitarias de la Nación.

access to groundwater searched for ways to resolve water access problems on their own, by pooling resources to pay for pumps and wells. During the 1960s, the government shifted its attention to water provision in rural areas, creating the National Drinking Water Service (SNAP, *Servicio Nacional de Agua Potable*) for smaller towns and financing the creation of drinking water cooperatives with the aid of multilateral loans from organizations like the Inter-American Development Bank, which were starting to take interest in the water sector. Urban water and sanitation infrastructure and service provision continued to deteriorate.

Another Coup and the "Process of National Reorganization"

In 1976, the military overthrew Isabel Perón's government and began a seven-year period of violent and highly repressive military rule. The army, the navy, and the air force came together to run the country in a succession of military juntas led by Jorge Videla, Roberto Viola, and Leopoldo Galtieri. The juntas staged the *Proceso* and the Dirty War, involving kidnapping, torture, and murder of the regime's opponents that led to lasting trauma for the country.[16]

In 1980, the military junta under Videla decided to reorganize *Obras Sanitarias de la Nación*, mainly to break up the service and shift some of the burden of service provision to lower levels of the state administration. Whereas before, OSN had been responsible for water and sanitation services throughout the country, now the organization of water and sewerage provision would become entirely decentralized. OSN was left responsible for services in the federal capital of Buenos Aires and the fourteen districts then comprising Greater Buenos Aires, whereas the

[16] In just one example, decades after the dictatorship, families were still looking for babies of detainees who had been pregnant and given birth while detained; the regime went so far as to take the babies while executing their parents, and in some cases, to give the babies to military officers to raise, a practice that would be raised at trials of the junta members year later. For more on this period, see Munck (1998) and Finchelstein (2014).

provincial governments would become responsible for handling services in their territories.[17] The transfer took place quickly and with little regard for the differences in resources and experience among the provinces. Under José Martinez de Hoz as Minister of the Economy during the first five years of military rule, the regime sought to reduce the role of the state and move toward market-oriented policies. By contrast to Pinochet's dictatorship, however, the military juntas of this period did not have a coherent ideological vision to restructure economic policy and some plans to liberalize economic policy were blocked internally by parts of the military and the regime.[18]

The last dictator of this epoch was Reynaldo Bignone, a retired general, who eventually announced that elections would be held in 1983 while attempting to grant himself and other members of the regime blanket amnesty against allegations of human rights abuses. As the dictatorship came to a close and democratic elections were held, Alfonsín from the UCR political party won. He would serve one term until the Peronists would rally and come back to power with the election of Carlos Menem. Yet the Menemist Peronism that was about to be implemented would radically differ from the traditional Peronist agenda.[19]

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[17] Ley 18.586, Decreto 258/80.

[18] However, there were several moments of continuity between the dictatorship era and the policies that were to come in the 1990s. For example, Domingo Cavallo, an economist with a PhD from Harvard, had joined with a group of businessmen from Córdoba to create the Fundación Mediterránea, a think tank that would bring together a group of economists aiming to liberalize economic policy, including introducing private sector participation into more areas of economic activity. Cavallo would briefly head the Central Bank while the *proceso*'s last dictator, Bignone, was in power, and though he would leave after less than two months, he would return in 1991 as Minister of the Economy under Menem.

[19] The political repression of the *proceso* had led many Argentines to go abroad, including young people who were educated abroad and came back following the return to democratic rule with graduate degrees and ideas about economic policy that would challenge the old statist models. Some of these people would later become active in political parties, including the Peronist PJ party, and would push for a "renewalist" (*renovadora*) agenda within the party by the late 1980s. See Teichman (1997).

The Privatization Tide and the Largest Concession in the World

The morning after Carlos Menem was sworn in as Argentina's president and arrived at the Casa Rosada, he told reporters: "we have to conduct major surgery without anesthesia…if not, Argentina has no future." He told people to be prepared to "endure a very tough period in order to emerge from this crisis," including massive increases in utility rates and gas prices.[20] The following month, in August 1989, the Argentine congress passed the State Reform Law (Law 23.696, *Ley de Reforma del Estado*), which declared public services, the "economic and financial situation of the National Public Administration," and virtually all state-run enterprises to be in a "state of emergency," authorizing the executive branch to proceed with partial and total privatization or simply liquidation of state-owned enterprises, ranging from selling shares through divestiture to granting concessions (*Capítulo I, De la emergencia administrativa, Artículo 1; Capítulo II, De las privatizaciones y participación del capital privado, Artículo 8*). In the initial law, the Ministry of Public Works and Services would focus on dismantling state-owned enterprises in areas like telecommunications, airlines, railroads, and oil. In a decree made the following year (*Decreto 2074/90*), Menem outlined a second phase of reforms, authorizing concessions for gas, electricity, and water services (see Table 4.1). Menem had been elected as a Peronist, but quickly began shifting his agenda to promote not only privatization but also macroeconomic policies favoring deregulation and the liberalization of trade and financial capital flows.

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[20] McCullough, Ed. 1989. "Menem warns of 'surgery without anesthesia' to break ruinous inflation." *Associated Press*. 9 July.

Table 4.1. Laws Transforming Water and Sanitation Sector in Argentina

Date	Law	Action
August 1989	Law 23,696, *Ley de Emergencia Administrativa y Reforma del Estado*	Argentine state declares public services and enterprises to be in state of emergency
October 1990	Decree No. 2074/90	Outlines additional steps for privatization
1991	Decree No. 1433/91	Creates time table for concession (*Cronograma Básico de la Concesión de la Distribución y Comercialización de los Servicios de Provisión de Agua Potable y desagues cloacales*)
May 1991	Resolution No. 97/91	Creates *Comisión Técnica de Privatización de Obras Sanitarias de la Nación,* the "Privatization Committee"
June 1992	Decree No. 999/92 "Water Decree"	Approves legal/regulatory framework for privatization of water distribution and sewage system in Buenos Aires (federal capital) and other municipalities of Buenos Aires province (including rate setting process)
December 1992	Resolution No. 155/92	Consortium awarded concession contract to take over OSN, formally signed in April 1993
September 1993	Decree No. 787/93	Concession to operate water and sanitation system of Greater Buenos Aires formally approved by government

Source: Compiled by author based on review of referenced laws in database of Argentine laws in the "Memoria de las Privatizaciones," by the Ministerio de Economía and Finanzas Públicas (2002)

According to critics, the consultation with Congress about the law was a "formality," and the privatization process was "not subject to the scrutiny of the public" nor organized civil society actors (Faccendini 2007, 29). Despite some language on social protections for workers in the law, there were no explicit measures included to protect users and there were no moments envisioned in the process during which consumers or civil society groups could shape the changes. Moreover, the law authorized privatization before regulatory bodies for public utilities were fully put in place; since many of them were set up simultaneously with the privatization, there was little time to create organizations that would be ready to respond to problems immediately. Regulatory agencies would eventually be developed, a consumer protection law would be passed in 1993 (*Ley 24.240, Defensa del consumidor*), and committees with representatives from consumer groups would be incorporated into the regulatory process, but at

this early phase the emphasis was on getting the privatizations completed quickly as opposed to slowly setting up the new organizational arrangements into which they would be introduced.

In addition to the aim of cutting back the public sector across many areas, the involvement of the private sector in water supply and sanitation became articulated in terms of attaining universal coverage of services and improving the quality of service delivery, both by improving overall operations and undertaking necessary capital investments to improve water and sanitation infrastructure. According to Rey (2003), between 1980 and 1993, investment for water services provision had plummeted, the infrastructure continued to deteriorate, and there were personnel problems, all of which allowed the executive to "declare water and sanitation services [to be] in a 'state of emergency'" (8) and to move toward a concession arrangement with the private sector. According to one report prepared by SIGEP (*Sindicatura General de Empresas Públicas*) about OSN, there were multiple aspects of the utility that were in disarray, for example: "(a) Accounts receivable shown in the statements are not correctly stated due to lack of reconciliations and control, (b) The collection system is extremely poor, (c) Securities are incorrectly valued, (d) There are long term liabilities for unpaid income taxes, (e) Receivables from users are due for 5 or more years."[21] Pro-market policymakers were convinced that as opposed to being a feature of a particular era during which water and sanitation were allowed to deteriorate, the problems were due to an endemic lack of state capacity to carry out the necessary improvements, and they relied on this lack of state capacity as their primary justification to involve private companies (Azpiazu and Forcinito 2003).

[21] Office Memorandum. To: LAC Files. From: Angel Gonzalez-Malaxechevarria, Senior Financial Management Specialist, LCPED. Subject: Argentina – Proposed Water Supply and Sewage Engineering Project Management Performance and Audit Report on Obras Sanitarias de la Nación (OSN) Prepared by Sindicatura General de Empresas Públicas (SIGEP). 28 June 1985.

A regulatory agency called ETOSS (*Ente Tripartito de Obras y Servicios Sanitarios*) was set up to oversee and work with the privatized water and sanitation utility in 1990, though the agency was still being organized as the concession began. The intended purpose of the agency was to serve as a mediator between the state, consumers, and the private sector to facilitate the provision of formerly public services by a private consortium. The agency was to assure the quality of the services, protect the interests of the community, and to make sure that the concession contract terms were fulfilled. ETOSS would be run by a six-person directory with representatives of the national government, Buenos Aires province, and the city of Buenos Aires, and in the initial years, would have a staff of sixty-seven employees, which would later grow (Ordoqui Urcelay 2007). The agency would have the power to sanction the company if the concession were not implemented according to the agreement. The initial core of the regulatory agency involved former employees of *Obras Sanitarias de la Nación*. Representatives of the World Bank were also present in the creation of the new regulatory framework and in other preparations to introduce private sector participation into the sector.[22] Nonetheless, as a member of the regulatory agency would later comment, there had been "little experience" with transforming the water and sanitation sector in this way, including at the international level, and "a lot was improvised," which would lead to a privatization process that happened quickly and would confront many setbacks.

To transform *Obras Sanitarias de la Nación*, a privatization committee (*comité de privatización de OSN*) was created, in 1991, with representatives from the government and unions, as well as additional consultants. Many of the key actors whose approval would help the privatization go forward were invited to be part of the discussion, and incidentally, many of them

[22] Interview by author with Emilio Lentini, formerly at ETOSS, currently at ERAS, Buenos Aires, Argentina.

would continue to be key actors even after the concession was rescinded. For example, Carlos Ben, who had worked for *Obras Sanitarias de la Nación*, actively participated in the privatization committee and became part of Aguas Argentinas, working in the regulatory area, and later became the president of AySA. Union leaders also went along with the privatization at the outset, until changing their position later on. Workers were offered voluntary retirement and severance packages, whereas those who would go on to form part of Aguas Argentinas could buy shares in the company through the workers' shareholder program. As the former director of Aguas Argentinas and head of the three water concession contracts operated by Suez in Argentina, would later reflect:

> There were people from the union or loyal to the union, that was part of the privatization committee, and which gave its input and said 'it has to be done this way, that way'…And the union at the moment gave its approval, because we did a plan of voluntary retirement that was done by so many people. The union did not resist. In other words, I think that the union understood that the company was going to go better and so the union also [went along]…instead of trying to slam on the brakes…and this is very interesting, because later the union understood in 2006 that…it was better to return to the state because the state was going to bring, let's say, a financing guarantee that the private sector [couldn't because] they had been broken by the crisis. So the union is very clever.[23]

Following the decision to privatize, an international bidding process began. One of the government's main objectives with respect to ensuring the continued provision of basic services was to identify the bidder that was proposing to take over the system while charging the lowest rate to consumers, as well as offering a good investment plan for the first ten years of the concession. On 28 December 1992, the bid was awarded to the Aguas Argentinas consortium, led by the French company Suez (then Lyonnaise des Eaux-Dumez) as the operator of the

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[23] Interview by author with Jean-Bernard Lemire, former General Director of Aguas Argentinas, Buenos Aires, Argentina.

contract and the new utility, with other French, Spanish, British, and Argentine companies also participating as shareholders.[24]

The bidding documents and concession contract were designed such that there was a reference tariff, referred to as the "K" factor, which could be revised due to factors such as changes in inflation, and a "K Factor Adjustment Coefficient," referred to as "CAF," which would reduce the reference tariff. The idea was that the winning bidder would be the one who proposed the largest tariff reduction, after meeting certain service delivery standards and making the planned investments.[25] One of the major reasons the consortium received a favorable evaluation, then, was because they proposed the lowest initial tariff.[26] The company's plan was to use the cash flow from the tariffs to run the system and to obtain loans from local and international sources for expansion and other investments, mainly from multilateral lending agencies that charged more favorable interest rates. The World Bank, the Inter-American Development Bank, the IFC, and EBRD would all eventually provide loans for investments in the sector.

All of the tariff payments would be paid in Argentine pesos. However, the Argentine economy had been "dollarized" following the 1991 law of convertibility, which tied the value of

[24] The Aguas Argentinas consortium was comprised of Lyonnaise des Eaux-Dumez, now Suez (France), Sociedad Comercial del Plata S.A. (Argentina), Sociedad General de Aguas de Barcelona S.A. (Spain), Meller S.A. (Argentina), Banco de Galicia y Buenos Aires S.A. (Argentina), Compagnie Genérale des Eaux S.A., now Veolia (France) and Anglican Water (England). Aguas Argentinas S.A. was created on February 16, 1993 for a term of 42 years, which could be extended automatically for another 42 years if the concession contract were to be extended.

[25] Many households in Greater Buenos Aires that were, in fact, connected to the network did not have meters. Consequently, the tariff setting and billing process would differ between those consumers with and those without meters. For those customers with meters, residents would be charged a fixed charge (*cargo fijo*) in addition to a variable charge corresponding to every cubic meter of water consumed. For those without meters, the basic bimonthly tariff (*tarifa básica bimestral)* calculation would be made according to the following calculation: TBB = K * Z * TG (SC * E + ST/10) where K is the "modification" coefficient, Z is the geographic zone, TG is the general tariff, SC is the surface area of the building, E is the type/date of construction and ST corresponds to the surface area of the territory.

[26] ICSID. 2010. "Proceedings between Suez, Sociedad General de Aguas de Barcelona S.A., and Vivendi Universal S.A. and The Argentine Republic, ICSID Case No. ARB/03/19: Decision on Liability." Washington, DC: International Centre for Settlement of Investment Disputes.

the Argentine peso to the US dollar and created a currency board that was intended to make the Argentine currency that was circulating be equivalent to the state's foreign currency reserves. The consortium was also protected by an additional instrument: the bilateral investment treaty. Bilateral investment treaties had been signed between Argentina and France in 1991, and Argentina and Spain in 1991, and Argentina and the UK in 1990.

The new company Aguas Argentinas S.A. and Argentina, represented by Domingo Cavallo, simultaneously serving as the Minister of the Economy and the Minister of Public Works and Services, signed the concession contract on April 23, 1993, for thirty years.[27] The agreement was considered a "star contract" and a "model contract," especially by the private sector and in international circles.[28] According to the contract, Aguas Argentinas would take over all of the core functions of the water supply and sanitation system in Greater Buenos Aires, including collecting water and making it suitable for drinking, transporting it, distributing it, and selling it to a population of about 9 million people, covering the city and sixteen municipalities around the *capital federal*. They were also to be responsible for the collection, transport, treatment, management, and potential reuse or commercialization of wastewater, including industrial effluent going into the sewage system. Aguas Argentinas also planned to maintain and expand existing infrastructure, as well as to construct new infrastructure projects. In other words, the company was expected to take on full-scale responsibilities for water and sanitation in Greater Buenos Aires.[29] They did not, however, acquire ownership of the assets of the water and sanitation system.

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[27] Contrato de Concesión [Concession Contract.]. Signed 28 April 1993. *Memoria de las Privatizaciones*. Buenos Aires, Argentina: Ministerio de Economía y Finanzas Públicas.
[28] Interview by author with Adriana Oriana, former Aguas Argentinas directorate, Buenos Aires, Argentina.
[29] The *Plan de Mejoras y Expansión* included six five-year plans, with the first two included in the contract.

Neither the consortium nor the newly established Aguas Argentinas had to pay the government of Argentina anything for acquiring the concession.[30] The company would begin with the initial capital of $120 million peso-dollars in Aguas Argentinas—what Aguas Argentinas officials would later refer to as a "social investment"[31]—and then would begin the concession for thirty years, with a corresponding investment plan evaluated by five-year reviews.[32] In return, the company was planning on yielding a regular return to investors. Though the Buenos Aires concession was the most visible and central one, municipal and provincial governments went along with private sector participation in twelve of the country's twenty-three provinces.[33] As one interviewee who had been involved in the privatization process put it, since the national government was privatizing water services in Buenos Aires, there was a strong "demonstration effect" that would influence the provincial governments.[34] The French company Suez Lyonnaise des Eaux would be the majority shareholder in Greater Buenos Aires, Córdoba city,[35] and Santa Fe province.

The expectation was that the company would not only invest in the water and sanitation system, but also make improvements to the organization itself. As former Aguas Argentinas directors would later point out, the "modernization" of the company and improvements made to

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[30] Aguas Argentinas, the concessionaire, was required to post a performance bond of US$150 million to guarantee its performance and protect Argentina from potential mishandling of the water and sanitation utility.
[31] Interview by author with Adriana Oriana, former Aguas Argentinas directorate.
[32] Tariffs would also be revised on a five-year schedule, plus "extraordinary" revisions could be made outside of the schedule based on the investment costs and how implementation was proceeding.
[33] Municipal or provincial governments attempted private sector participation in the water and sanitation sector in the Buenos Aires, Corrientes, Catamarca, Cordoba, Formosa, La Rioja, Mendoza, Misiones, Salta, Santa Fe, Santiago del Estero, and Tucuman provinces. The remaining provinces in which PSP was not attempted include a group of central southern provinces (La Pampa, Neuquén, Río Negro, Chubut, Santa Cruz, Tierra del Fuego), northern provinces (Jujuy, Chaco), eastern provinces (Entre Ríos), and western provinces (San Juan, San Luis).
[34] Interview by author with Roberto Chama, Centro de Estudios de Transporte y Infraestructura, Buenos Aires, Argentina.
[35] Note that in Córdoba, eventually foreign investors pulled out and were replaced with Argentine investors, the Roggio group. The Córdoba concession has the following shareholders: Benito Roggio e Hijos S.A. (61.15%), Inversora Central S.A. (28.02%), and Banco de Galicia y Buenos Aires S.A. (10.83%).

the daily functioning of the company with respect to the introduction of information technology and processes of attending to clients and customer service were also part of the daily changes made and that would be incorporated in some way even into the daily operations of AySA when it would take over Aguas Argentinas in 2006. Everything had been done on paper in the old utility, and in the early 1990s there were about five computers in the office. The technology used in the plants was also lacking. Suez and Agbar brought professionals from France, Spain, and Chile as part of the promise of technology transfer and as consultants.[36] Aguas Argentinas set its operations up in the same space as OSN, with some staff that left OSN through voluntary retirement, but also quite a bit of continuity. Expanding access, charging tariffs that were affordable yet provided regular revenue for the company, and getting regulatory processes going would all be major challenges. After a little over a year had passed, the renegotiation of the contract would already begin.

Privatization and Local Business Conglomerates

In *Embedded Autonomy,* Peter Evans (1995) considers how state agencies, business elites, and transnational corporations shaped the emergence of local information technology industries in Brazil, India, and Korea during the 1970s and 1980s and the capacity for industrial transformation more broadly. He argues that in contrast to predatory states, which lack bureaucracy and where "personal ties" and "individual maximization takes precedence over pursuit of collective goals," developmental states are characterized by a form of Weberian bureaucracy with "corporate coherence" and "autonomy" as well as embeddedness in a "concrete set of social ties that binds the state to society and provides institutionalized channels for the

[36] Interview by author with Adriana Oriana, former Aguas Argentinas directorate, Buenos Aires, Argentina.

continual negotiation and renegotiation of goals and policies" (12). Taking Evans's theory as a point of departure, there are two main relationships that deserve a side note: the relationship between transnational capital and local capital, and the relationship of multinational and local firms to the state bureaucracy.

For example, Teichman (2002) argues that there were personalistic alliances between national private sector elites and "state market reformers" and that such alliances impacted policy implementation. She writes that some powerful business conglomerates had direct access to the reform process through personal policy networks, resulting in a lack of institutionalized relations between the private sector and the state along the lines described by Evans with respect to "embedded autonomy." There were historical divides among business organizations, such as between the Peronist General Economic Confederation that was open to state interventionism to protect small and medium sized businesses, and the Coordinating Association for Free Businessmen's Institutions (ACIEL), which was strongly anti-Peronist and anti-statist and represented landed, big industrial, and commercial interests (including the Rural Society, the Chamber of Commerce, and the Argentine Industrial Union). Nevertheless, in the early 1990s almost all business groups that were not part of the most elite group, the Council of Argentine Business, which had personal access to Menem and Cavallo, had trouble accessing the state (Teichman 2002). Some major conglomerates benefited tremendously, such as those who got tax breaks and came to dominate Argentina's export market by the mid-1990s.

The relationship of business interests to the state was especially important in the case of privatization. A number of private sector firms had been former contractors for the state's public enterprises, so they were interested in continuing to receive business and Menem's government

had to take this into account when getting them to comply with reforms. According to Teichman, "a few domestic companies, mostly former government contractors, were part of consortia, composed also of multinational banks and foreign companies, which purchased public companies" though "one analysis points out that the actual number of domestic firms participating in purchasing consortia is smaller than originally thought, since there are numerous cases in which a particular enterprise participates in more than one consortium." Members of the private sector were closely involved in the privatization process and how the decisions made by Menem's government would be implemented. The biggest conglomerates were also highly invested in the convertibility between the peso and the dollar, since devaluation would be disastrous for the debts they had taken on in dollars (for example, after the crisis, there were sharp divides between the CEA, which wanted to maintain convertibility, and the Grupo Productivo). Whereas a full analysis of local business elites is beyond the scope of this study, the wide participation of Argentine companies in the privatized utilities (see Table 4.2), albeit with smaller proportions of shares, suggests that at least some Argentine companies participated in and supported the privatization, joining consortia alongside the larger multinational companies such as Suez and Azurix.

Water as Social and Environmental Policy in Greater Buenos Aires

Water and sewerage provision is a social policy that is connected to socioeconomic and spatial inequality, and outside of the federal capital in the Greater Buenos Aires area this becomes especially evident. Though the gap was slowly narrowing, the contrast between the city of Buenos Aires and its periphery was stark: for example, in the early 1990s, almost all (99.9

percent) households in the city had running water, whereas in the neighborhoods on the edge of the city, only 56.3 percent of households had running water (see Table 4.3). In cases where

Table 4.2. Private Investment in Water and Sanitation Utilities, 1999

Location	Utility	Shareholders		
		Investor Company	% Shares	Nation of origin
Buenos Aires (city) and Greater Buenos Aires (17 partidos)	Aguas Argentinas S.A.	Suez Lyonnaise des Eaux Aguas de Barcelona S.A. Banco de Galicia S.A. PPP Vivendi Meller S.A. CFI Anglican Water Plc.	35.59 25.61 8.46 7.80 7.74 5.33 5.12 4.35	France Spain Argentina Argentina France Argentina Multilateral org UK
Buenos Aires province	Azurix Buenos Aires S.A.	Azurix PPP	90.00 10.00	USA Argentina
Buenos Aires province – Balcarce	Aguas de Balcarce S.A.	Camuzzi Argentina	100	Argentina
Buenos Aires province – Campana	Aguas de Campana S.A.	Gualtieri Construcciones	100	Argentina
Buenos Aires province – Pilar	Sudamericana de Aguas S.A.	Sociedad Anónima controlante Tres accionistas (unipersonales)	80 20	Argentina
Córdoba (city)	Aguas Cordobesas	Suez Lyonnaise des Eaux Constructora Delta S.A. Inversora Central S.A. Aguas de Barcelona S.A. Banco de Galicia S.a.	28.69 14.44 14.44 11.11 11.11	France Argentina Argentina Spain Argentina
Corrientes province	Aguas de Corrientes S.A.	Aguas del Litoral S.A. EMACO S.A. PPP	71.08 18.92 10.00	Argentina Argentina Argentina
Formosa province	Aguas de Formosa S.A.	SAGUA Internacional S.A. Hidrotechnics S.A. Estado Provincial	80.00 10.00 10.00	Argentina Argentina Argentina
Mendoza province	Obras Sanitarias de Mendoza S.A.	Inversora del Aconcagua S.A. (ENRON/SAUR/ITALGAS) Aguas de Mendoza Estado Provincial PPP	50 20 20 10	USA France France Argentina Argentina
Misiones province	Servicio de Agua de Misiones S.A.	Urbaser S.A. Dycasa S.A. Urbaser Argentina S.A. PPP	45 20 25 10	Spain Spain Argentina Argentina
Salta province	Aguas de Salta S.A.	NECON S.A. PPP SANEPAR operador	90 10	Argentina Argentina
Santa Fe province	Aguas Provinciales de Santa Fe S.A.	Suez Lyonnaise des Eaux Banco de Galicia S.A. Interagua Ser. Int. de Agua S.A. PPP Aguas de Barcelona S.A.	58.09 12.50 11.22 10.00 8.19	France Argentina Spain Argentina Spain

Table 4.2, continued

Santiago del Estero province	Aguas de Santiago S.A.	Sagua Internacional Corporation CURI Hnos. S.A. Editoral El Liberal SRL CAST TV S.A. PPP	45 15 15 15 10	Argentina Argentina Argentina Argentina Argentina

Source: *Informe Nacional sobre la Gestión del Agua en Argentina*, based on data from COFES (1999).

households lack access to adequate quantities and qualities of drinking water, they typically get groundwater by drilling wells and installing small pumps near the household site or by purchasing bottled water through formal or informal means. The former often results in the consumption of inadequately treated water,[37] whereas the latter tends to result in increased costs for families already living in poverty (ACIJ 2009).[38] The relationship between the state and the water industry therefore affects standards of living, and water policy can be a form of public social provision. Connections and tariffs would therefore be sensitive issues.

Table 4.3. Percentage of households with running water in Buenos Aires, Greater Buenos Aires, and Buenos Aires Province, 1980-2010

	1980	1991	2001	2010
Buenos Aires (City)	99.1	99.9	99.8	99.6
Greater Buenos Aires (24 partidos)	49.7	56.3	67.8	72.4
Buenos Aires Province	52.1	65.3	76.1	80.0
Argentina	60.9	72.2	80.2	84.0

Source: Instituto Nacional de Estadística y Censos de la República Argentina (INDEC), "Viviendas que disponen de agua corriente de red por provincia, clasificadas en orden decreciente, según el último censo"

[37] Studies have shown groundwater in the Buenos Aires metropolitan region to be polluted.
[38] According to one calculation, the cost of purchasing bottled water for a household that is not connected to the water supply network can amount to $675 for 900 liters per month for a family of four people who each consume 7.5 liters a day (the WHO-recognized amount), which accounts for the more than half of the estimated "canasta básica" of $1,001.74.

Table 4.4. Percentage of households with connection to sewerage system in Buenos Aires, Greater Buenos Aires, and Buenos Aires Province, 2001

	2001
Buenos Aires (City)	99.6
Greater Buenos Aires (24 partidos)	56.5
Buenos Aires Province	60.8
Argentina	54.8

Source: INDEC, "Hogares por presencia de servicio en el segmento – desague a red (cloaca), total del país según provincia."

Figure 4.1. Poverty in Buenos Aires and Greater Buenos Aires, 1988-2003

Source: Compiled by author based on data published in INDEC (2003), which carries out a regular household survey (Encuesta Permanente de Hogares). Group 1 of Greater Buenos Aires contains the *partidos* of Avellaneda, General San Martín, Lanús, Lomas de Zamora, Morón, Quilmes, San Isidro, Tres de Febrero, and Vicente López. Group 2 of Greater Buenos Aires contains the *partidos* of Almirante Brown, Berazategui, Esteban Echeverría, General Sarmiento, Florencio Varela, La Matanza, Merlo, Moreno, San Fernando, and Tigre. According to the survey methodology, people living in indigence (below the "línea de indigencia") are those who do not have sufficient income to cover the cost of a basic food basket ("canasta básica de alimentos"). People living below the poverty line are those who do not have sufficient income to cover the cost of a basic food basket plus a set of additional basic goods and services (clothing, transportation, education, health care, and so on).

Access to water in urban areas overlaps with structural poverty. In some cases, in the absence of the state and the private sector, people formed cooperatives that would enable them to place a

well and a pump or buy a large water container. In poorer neighborhoods much of the negotiation around water and sewerage has often been done through clientelistic ties, yet clientelistic in the sense that Auyero (2000) refers to them, "clientelist arrangements in the way in which poor people solve their everyday survival problems" (169).

The Buenos Aires metropolitan region contains the watersheds of three major rivers—the Luján,[39] the Reconquista,[40] and the Matanza-Riachuelo[41]—which drain into the Río de la Plata.[42] Historically, the watershed has supported many kinds of uses, ranging from water for informal settlements and households in middle-class and more affluent areas, to water for farming and raising cattle, to heavy industrial use, including petroleum refineries. The Matanza-Riachuelo is the most polluted watershed in the entire country. Few regulations to control discharging effluents from households and industry back into the river, as well as inadequate water and sanitation infrastructure. With respect to groundwater sources, the two most important aquifers are the Pampeano and the Puelche. Whereas pollution would not frequently enter the discussions about the water to be transported and consumed through the pipes and other infrastructure that was being invested in, water quality would be a continuous issue and public health concern

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[39] The Luján watershed contains about 1 million people and the municipalities of Suipacha, Mercedes, Luján, Pilar, Escobar, and Tigre, as well as parts of Carmen de Areco, San Andrés de Giles, Exaltación de la Cruz, Campana, Gral. Rodríguez, Moreno, José C. Paz, Malvinas Argentinas, and San Fernando.

[40] The Reconquista watershed contains the municipalities of General Las Heras, General Rodríguez, José C. Paz, Luján, General San Martín, Hurlingham, Ituzaingó, Malvinas Argentinas, Marcos Paz, Merlo, Moreno, Morón, San Fernando, San Isidro, San Miguel, Tigre, Tres de Febrero and Vicente López (Herrero and Fernández 2008, pp. 24-25).

[41] The Matanza-Riachuelo watershed contains about 3.5 million people in the La Boca and Barracas neighborhoods in the city of Buenos Aires, as well as the fourteen municipalities of Greater Buenos Aires: Almirante Brown, Avellaneda, Cañuelas, Esteban Echeverría, Ezeiza, La Matanza, Lanús, Las Heras, Lomas de Zamora, Marcos Paz, Merlo, Morón, Presidente Perón and San Vicente (Herrero and Fernández 2008, p. 19).

[42] The Cuenca del Plata is the fifth largest watershed in the world, stretching over portions of Argentina, Bolivia, Brasil, Paraguay, and Uruguay. The Paraná, Paraguay, Uruguay, and Río de la Plata are the major sub-watersheds of the Cuenca del Plata. The Paraná and Uruguay Rivers flow into the Río de la Plata, which is an estuary that flows into the Atlantic Ocean (Herrero and Fernández 2008).

placing additional pressure on local residents and undermining the quality of life in the *conurbano*.[43]

The World Bank and Multilateral Lenders on the Sidelines

There were three major loan and project agreements for water supply and sanitation signed between Argentina and the World Bank from the late 1980s to the late 1990s: one for US$60 million, one for US$100 million, and one for US$30 million.

The first water supply project funded by the World Bank, approved in December 1985 and implemented in April 1987, provided funding for the country to develop a National Water and Sanitation Plan as well as implementing a pilot program in Buenos Aires, Córdoba, and Rosario de Santa Fe. The purpose of the project was to work with OSN and provincial utilities to "assist the Government to rehabilitate old and poorly maintained water and sewerage installations and extend water services to new areas, while strengthening sector planning, management and finances."[44] At this point, privatization was not yet on the table, though World Bank analysts evaluating the sector noted that although "the sector had reached a comparative high level of service coverage and quality by early 1950," the sector had "focused on the construction of the system, without paying sufficient attention to efficiency, and they depended heavily on government subsidies." The report continued:

> When those subsidies gradually discontinued because of financial constraints, the institutions were not able to adjust and the system began to deteriorate. Commercial and operations and maintenance activities were the weakest areas of the system…The mission also noted that the Government, faced with serious financial constraints, had decided to decentralize the system by entrusting the responsibilities of the sector activities to the Provinces. However, they were not

[43] In the Matanza-Riachuelo watershed, for example, sewage treatment plants were a key topic: Planta Norte (built in 1998, water comes from Tigre/San Fernando/San Isidro, treated water goes into Reconquista), Planta Riachuelo , Planta Berazategui, Planta Sudoeste, Planta Laferrere, Planta El Jaguel.

[44] World Bank Office Memorandum. To: Distribution List. From: Guillermo Yepes, Acting Chief, LCPWS. 1 July 1985. (Loan 2641-AR).

> prepared to carry out the necessary tasks. Some initiatives of the Federal Government and inter-provincial efforts to improve the situation had not been fully successful…[45]

Several years later, on August 13, 1991, the World Bank signed loan and project agreements with the *Consejo Federal de Agua Potable y Saneamiento* (COFAPYS)—later replaced by the *Ente Nacional de Obras Hídricas de Saneamiento* (ENOHSA)—for a US$100 million loan for work in the water and sanitation sector. COFAPYS would be permitted to make subloans to public and private water and sewerage utilities throughout the country. The project objectives were to "a) promote greater sector efficiency and financial viability; b) expand service coverage; c) improve the quality of the water supply and sewerage services while protecting the environment; and d) *encourage private sector participation in the water and sanitation sector*" (World Bank 1990, 3).

Furthermore, the World Bank amended the project in 1993 to extend the project scope to support the concession created for the water utility in the Buenos Aires metropolitan area, namely, preparing the financial analysis and bidding documents, as well as designing the institutional structure of the regulatory agency, ETOSS. The consultants working on the project reflected on several difficulties. For example: "The water sector is a sector with frequently complex and conflicting objectives of efficiency and equity, and thus needs a different approach to reform other utility sectors such as telecommunications, power, and gas that do not face the same issues." They also reflected: "The establishment of effective regulatory agencies is as important as private sector participation. However, in the case of ETOSS this task is taking longer than anticipated mainly because the culture of regulating public utilities is an alien concept in Argentina and in LAC. Hence, the new role of the public sector as a regulatory of

[45] World Bank Office Memorandum. To: Files. From: Mario Artaza, LC2PB. Subject: Argentina – Appraisal of the Water Supply Project – Decision Memorandum. 17 April 1985.

water utility services is not well defined, nor well understood by the society and the political establishment" (World Bank 1998, iv-v).

By the late 1990s, the project reports were much more direct about the goal of incorporating PSP. Yet at the same time, the reflections at the World Bank on how optimistic one could be about the private sector were softer.

> …private sector participation (PSP) continues to underpin the government's strategy to improve the quality and efficiency of water and sanitation services in urban and rural areas. *While demand for privatization remains strong, however, the recent experiences in the sector have demonstrated how complex and difficult a process this is*…Argentina's ambitious reform program of the water sector which included the 1993 concession for the metropolitan center of Buenos Aires, is *under considerable stress and still lacks the institutional capacity to be sustainable*. Emerging regulatory issues in Buenos Aires, the low level of investment in the oldest privatized utility of Corrientes (privatized in 1991), and the premature termination of the concession in Tucumán, to name just a few, reflect the nature of the problems that should be urgently addressed by the federal and provincial governments to make this shift to private operation work better. We know from practical experience in Argentina and research by the Bank and elsewhere that the water sector presents some of the greatest challenges in privatization, and that this sector has not been as successful as others, such as telecommunications, gas, transport and electricity. This is both because of the different characteristics of the sector and the trade-offs to be made in realizing social and financial objectives. (World Bank 1999, 3)

The third major World Bank loan was approved in 1999 to provide additional assistance for the privatization process in municipal and provincial utilities. Although the original project objectives specifically mentioned that the loan was to support goals like the "introduction of private sector participation in the operation and management of water utilities" and the "adoption of appropriate regulatory frameworks"—and in recognition of the problems that were going on, was supposed to help address "emerging post-privatization issues such as weak regulatory capacity, slow extension of services to the poor, and conflict resolutions"—within several years the project had to be formally revised. In the new project objectives, approved in 2004, there was no language about private sector participation and the framing was softened to the "promotion of

efficiency in the operation and financing of water utilities" and addressing "universal service and environmental issues." Following the crisis, there were also "softened performance conditions" to "allow grants for urgent actions in poor urban areas."

The Inter-American Development Bank (IDB) also provided loans for the sector in Greater Buenos Aires and the provinces.[46] It provided not only loans to country governments but also "technical cooperation and direct loans to private concessionaires." IDB project objectives also included the language of promoting "private sector participation in both service delivery and investment financing."[47]

Questions, Problems, and Renegotiation: ETOSS, Aguas Argentinas, and the Channeling of Protest as Consumer Grievances

Almost from the outset, the implementation of the contract was fraught with problems about issues like workforce reduction, unplanned tariff increases, and setbacks to planned infrastructure improvements. During the first year, from the start of the concession in May 1993 through the end of April 1994, ETOSS received 300 consultation requests and 2,600 filed complaints, most of them by phone. More than half of the complaints had to do with malfunctioning sewers and interruptions in the water service. The following year, ETOSS received 7,010 requests for consultation and 6,131 complaints; this time, the largest proportion of complaints had to do with billing.[48]

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[46] Between 1965 and 1998, the IDB granted thirteen loans in the water and sanitation sector totaling the equivalent of US$745.2 million and resulting in the construction of "more than 780 public water supply systems."
[47] IDB. "Executive Summary." *Program in Support of Reform of the Water Supply and Sanitation Sector (AR-0175)*. IDB Project Database: Argentina.
[48] Ministerio de Economía y Finanzas Públicas (MECON). "Regimen Tarifario." *Memoria de las Privatizaciones*. Buenos Aires, Argentina.

The first "extraordinary" tariff revision took place in 1994.[49] In June 1994, ETOSS incorporated new goals into the planned developments to the water and infrastructure system, including extending water and sewerage connections to informal settlements (*villas de emergencia*) on the edges of Buenos Aires, increasing investment goals for extending coverage overall, and substituting water that had a high concentration of nitrates due to public health concerns. These changes led to an increase in the tariff coefficient from 0.73 to 0.83 the following month; meanwhile, if the plans were not fulfilled, the company was expected to lower tariffs (Delfino 1997).[50]

Around the same time that the water rates went up overall, Aguas Argentinas introduced a separate "infrastructure charge" (*cargo por infraestructura*) for new users to finance the construction of additional parts of the water distribution network and new water and sewerage connections. The infrastructure charge meant that households getting connected for the first time would pay $600 pesos for a water connection and $1000 for a sewerage network connection. Aguas Argentinas had won the bid in great part because they had presented lower rates for water and sanitation services than any other bidder and even OSN itself. Therefore when rates began to go up, this trend went against the established expectation and the rhetoric that had been promoted saying that rates were not supposed to increase right away and that they could even potentially decrease.

In the absence of mobilization by unions, a set of institutional changes created new spaces to channel conflict and grievances about the privatization process. People protested through both institutional channels, such as filing complaints with ETOSS ("reclamos en el

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[49] ETOSS Resolution 81/94, 30 June 1994.

[50] Note that in contrast to Chile, the "model company" ("*empresa modelo*") was not used. The concept was discussed during renegotiation, but it did not end up being implemented. The real costs and projected efficiency costs of the company were used instead.

ente") and through "local mobilization" ("movilizaciones locales") in the neighborhood and in front of the company's commercial offices. And "people didn't pay" when they thought charges were unfair.[51] Furthermore, local groups asserted that the infrastructure investments were not proceeding according to plan. For example, Victor Frites from the Water Forum (*Foro Hídrico*) in Lomas de Zamora, a municipality in southern Greater Buenos Aires, recalls that at the time, local groups were criticizing Aguas Argentinas because the company made investments in higher-income areas first in order to be able to start charging tariffs there right away. Neighborhood groups pointed out that areas such as Puerto Madeiro, San Isidro, and San Vicente Lopez received service while extensions on the outskirts of the city in the *conurbano* lagged. What was logical from the perspective of the managers—generating revenue and moving toward financing the system through customer payments—completely clashed with the expectations that the changes might finally bring water services to poorer neighborhoods and only became perceived as perpetuating existing inequality, even if in the short term, and adding insult to injury. As Victor put it:

> Aguas Argentinas was investing in the most profitable places, because they considered…consider that water is a business, and as a business has to be profitable. Ok, but we consider that no, water is a human right because if you don't have water, you don't live, because if you don't have the purchasing power to buy water, you die.[52]

Residents and neighborhood groups who faced daily problems related to the water and sewerage systems would often voice their grievances in multiple institutional spaces without getting clear resolution. For example, in Avellaneda, the same neighborhood where Evita had triumphantly declared the extension of water connections decades earlier, residents complained that there was recurring flooding in the street. The flooding, combined with a lack of functional

[51] Interview by author with former ETOSS official, Buenos Aires, Argentina.
[52] Interview by author with Victor Frites, Foro Hídrico Lomas de Zamora, Buenos Aires, Argentina.

gutters, drains, and sewers, would result in stagnant water with traces of sewage in it in the neighborhood streets. Residents had complained to the municipal government of Avellaneda to no avail, and finally took the case to the *Defensoría del Pueblo de la Nación*, which demanded a response from local government officials in Avellaneda, but also pointed out that by contract, Aguas Argentinas was responsible for flooding related to sewage overflows in the area of service, and thus also had to provide a response.[53] Residents had appealed to two government organizations as well as the private company, and still their request for assistance was pending.

The *Defensoría*, a national ombudsman office set up in 1994, received many complaints related to Aguas Argentinas, made by individuals making claims as consumers and occasionally using the language of individual legal rights. Some of these complaints appeared to be the result of bad communication on behalf of the company and a complete mismatch with consumer expectations. For example, in one minor case, a resident went to the *Defensoría* for advice because her water bills for the year 1993 were readjusted without a clear explanation after she had paid the bills in full. Once again, the *Defensoría* played an intermediary role, asking for clarification from the water company, which explained that the bills were adjusted because the property category had changed; whereas the earlier bills had categorized the property in question as an empty plot of land, now the plot had a 320 square-meter house on it, which had been constructed in 1993 and required a change of status for the plot.[54]

In another case, this time related to water quality, one resident had complained to the local branch of Aguas Argentinas that the water coming out of the tap at his house was "dirty and

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[53] Defensor del Pueblo de la Nación. 1994. "El estancamiento de agua en los cordones de la vía pública y alcantarillas frente a su domicilio." Pp. 461-462 in *Primer Informe Anual: 17/10/94 al 31/12/94.* Buenos Aires, Argentina.

[54] Defensor del Pueblo de la Nación. 1994. "Pedido de información acerca del reajuste de boletas pagas." Pp. 470-471 in *Primer Informe Anual: 17/10/94 al 31/12/94.* Buenos Aires, Argentina.

brown." After getting no response, he went to file a complaint with ETOSS, requesting that a formal analysis be carried of the water quality on his property. Aguas Argentinas wrote a letter to ETOSS stating that they had done the analysis and that the result was "good," but the resident disagreed and ended up bringing the case to the *Defensoría del Pueblo de la Nación.* Staff from the *Defensoría* went to the resident's home to take samples themselves, but the person was not at home, so they took samples from a neighbor, got them analyzed at a lab in the University of Buenos Aires, and found that the quality of the water was in compliance with regulations, putting the matter to rest.[55] In other words, more severe criticisms of inadequate service expansion to poor communities and other problems occurred alongside more moderate critiques that were provoked by shifting from one mode of service provision to another—one involving different actors, expectations, and changes in daily practices that it took time for people to process.

Meanwhile, in the mid 1990s, Menemismo as a whole began to face serious challenges. Menem introduced constitutional amendments allowing him to run for reelection for a consecutive second term and won.[56] Yet in September 1996, more than 70,000 people came out to the Plaza de Mayo in support of a strike called by the *Confederación General de Trabajo* (CGT) and other union groups. The same month, groups called an *apagón*, during which people throughout the country were called upon to turn off their lights as a sign of protest against the government's policies, for five minutes from 8 to 8:05 pm on September 12. The *apagón* was

[55] Defensor del Pueblo de la Nación. 1994. Pp. 471-472 in *Primer Informe Anual: 17/10/94 al 31/12/94.* Buenos Aires, Argentina.
[56] In the 1995 elections, members of the left challenged the governing coalition on the basis of its neoliberal policies. For example: "'Argentina has been looted,' said Solanas, 'and May 14 will be the pardon for the great economic crimes that transferred the assets of the state to a few private hands." [ED-LP 2/26/95 from AFP] Other challengers talked about corruption.

supported by Frepaso and the Foro Multisectoral. Almost sixty percent of homes and businesses were said to have participated.[57]

In 1997-1999, the concession was renegotiated again per executive order.[58] From the perspective of Aguas Argentinas, it was necessary to talk about the "various difficulties that the Concession was experiencing." They were concerned about inflation and rates of water consumption, and the extent to which the infrastructure charge had become contentious. Both sides wanted to discuss environmental management of the Matanza Riachuelo watershed, the pace of improvement plans, and so forth. After a lengthy renegotiation process that lasted almost two years, with a government team headed by María Julia Alsogaray, several key breaches of contract were pardoned. A new charge, the *cargo MA (medio ambiente*) was added to finance the sewerage network. The contentious *cargo de infraestructura* for new clients was removed but replaced by the SU (*servicio universal*), a fixed charge of $4 pesos on a bimonthly basis for all users, that would get rid of the charge for new users, removing the extra financial burden placed on people that already had problems with access. A federal judge had ordered Aguas Argentinas to suspend charging the SU while the court considered a case filed by the *Defensor del Pueblo*; since the company was not receiving payment through the *cargo de infraestructura* and the SU, it suspended work on expanding the network. In response, sixteen local government officials from Greater Buenos Aires filed a claim that was passed through provincial government of Eduardo Duhalde to the courts, which rushed a decision and authorized the company to start charging the SU once again so that the construction could continue. But the company had included several months of retroactive charges for the SU, which appeared together on the new

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[57] "Dos paros y un apagón: La crisis de la alianza social que sustenta al menemismo generó la mayor escalada de protestas desde 1989." *Clarín Anuario 1996/1997*, p. 25.
[58] See Decree 1167/97, 20 November 1997; Decree 1369/99, 29 November 1999.

bill, which provoked further public outcry.[59] In a previous period, the company received an important rate increase of 80 percent.[60] Moreover, the renegotiation allowed not only to increase rates if necessary but also to postpone planned investments.[61] In an "ordinary" contract renegotiation in 2001, a "social tariff" was introduced to assist families that could not pay the full cost of services, consisting of a subsidy (Azpiazu and Castro).[62]

Around the same time, ETOSS formally incorporated the voices of consumer groups by creating a Users' Syndicate (*Sindicatura de Usuarios*) that would have standing to express and convey problems about the concession to the state. This group of associations ended up putting additional pressure on ETOSS and Aguas Argentinas to follow up on cases where the company was not in compliance with the contract. As Clemente Etchegaray, the head of the *Sindicatura* recounted, during this time, when ETOSS could not get the company to comply via an administrative proceeding, the groups often resorted to the courts. Etchegaray, a lawyer by training, participated in numerous petitions filed with the courts about the performance of Aguas Argentinas, requesting that judges intervene to order the company to pay users back when they did not comply with minimum requirements for water pressure or investments.[63]

ETOSS also began to hold hearings to discuss the negotiations with Aguas Argentinas with the public. For example, in June 2000, ETOSS held a major public hearing on the topic of the Plan of Improvements and Service Expansion, in the Regio Theater in downtown Buenos Aires. The hearing was held in connection with the first five-year "ordinary" tariff revision,

[59] Canto, Marcelo. 1998. "El aumento del 14% en el agua será retroactivo a marzo." *Clarín*. 11 October.
[60] Interview by author with Emilio Lentini, former ETOSS official, current ERAS official, Buenos Aires, Argentina.
[61] In 1999, the Ministry of Infrastructure and Housing (*Ministerio de Infraestructura y Vivienda*) was created, bringing together all national government decision making about water and sanitation policy under one roof (Ley 23.233 (1999)). The *Ente Nacional de Obras Hídricas de Saneamiento* (ENOHSA) was also created to assist with securing financing for water and sanitation infrastructure, especially at the provincial and municipal levels.
[62] See also: AySA. 2009. *Informes al usuario*. Buenos Aires: AySA.
[63] Interview by author with Clemente Etchegaray, Sindicatura de Usuarios within former ETOSS, Buenos Aires, Argentina.

stating that the service "involves questions that go beyond the present or future user of the service, due to their impact on the "general health of the population, their quality of life, and the protection of the environment," making it necessary to have a consultation with the community. ETOSS also wanted to discuss its plans to have meters universally installed. The users' commission (*comisión de usuarios*) was also invited to participate and present testimony on behalf of users and consumers.[64] More than sixty speakers presented on the first day, with statements made by Aguas Argentinas, ETOSS, members of the municipal government, residents, and civil society groups. The hearing became heated as residents of La Matanza and Lomas de Zamora came with signs and chants, and consumer associations criticized Aguas Argentinas for investing in the wealthier northern and western areas and investing at levels well below the promised levels. They also demanded that water not be cut off even if a customer was late in paying the bills.[65]

Table 4.5. Aguas Argentinas Concession Contract Discussions, 1993-2006

Year	Event
1993	Concession begins
1994	"Extraordinary" tariff revision (near renegotiation)
1997	"Extraordinary" tariff revision
1997-1999	Contractual renegotiation
1999-2001	First five-year tariff review
2001	Request for "extraordinary" revision
2002	Contractual renegotiation
2003-2004	Negotiations over transition and complaint/arbitration at ICSID
2006	Contract rescinded

Source: Lentini (2005)

[64] Ente Tripartito de Obras y Servicios Sanitarios. Resolución 42/2000. *Información Legislativa y Documental*. Ministerio de Economía y Finanzas Públicas.
[65] "Reclaman a Aguas más obras y menos aumentos de tarifas." *El Clarín.* 28 June 2000.; Interviews by author with former ETOSS and consumer associations.

Argentine Financial Crisis Leads to Contentious Renegotiation

In 2001, the Argentine state increasingly faced a serious economic crisis and a breakdown of political legitimacy. After several years of recession, rising unemployment, a major fiscal deficit, and failed attempts to renegotiate a crippling foreign debt, widespread social protests broke out that would force President De la Rúa and his cabinet out of office. The unions had become critical once again and other parts of civil society were organizing and protesting as well. On the periphery of Buenos Aires, for example, *piqueteros*[66] from the neighborhood of La Matanza set up roadblocks, including at Kilometer 22 of Route 3, the highway running from Buenos Aires to the south, toward Ushuaia, to protest against new austerity measures introduced by De la Rúa's government.[67] By the end of the year, the protests spread and intensified. On one night in December, lootings and unrest erupted in dozens of cities and towns throughout the country. In Buenos Aires, people broke storefronts and looted supermarkets, electronics, and clothing stores, in one instance taking Christmas trees. De La Rúa declared a state of siege and introduced a curfew, yet people spilled out onto the streets from the city's poorer, middle-class, and upper-class neighborhoods, while demonstrators marched to the Casa Rosada calling for the end of the pro-market policies of the 1990s.

On December 23, 2001, Adolfo Rodríguez Saá temporarily took over as president and declared a default on the country's $132 billion foreign debt, resulting in the "largest [default] in

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[66] In Argentinean Spanish, the word "*piquetero*" comes from the word "*piquete*," a "picket." Beyond simply referring to demonstrators, the word came to represent particular groups of protesters that made their demands primarily through street protests and roadblocks beginning in the late 1990s in Argentina. The demands were centered upon the loss of jobs and the deterioration of living standards in the country, and the *piquetero* protests were especially common in poorer neighborhoods and deindustrialized towns. Eventually, some protesters formed organized movements of unemployed workers, which, during the crisis, set up a barter system for the exchange of goods and services, as well as creating community soup kitchens and becoming involved with the recovered factory movement.

[67] Relea, Francesc. 2001. "Comienza la rebelión en Villa Miseria." *El País.* 23 August.

history."[68] The conflicts escalated. Politicians hid from the public eye while citizens shouted "*que se vayan todos*!" (everybody out!) in the streets. A succession of five different presidents ruled Argentina during the course of twelve days, until Eduardo Duhalde was finally chosen by legislative assembly to assume the presidency on January 2, 2002.

Four days later, the state declared another "public emergency" and announced that changes were needed to the convertibility law (*Ley 25.561 de Emergencia Pública y Reforma del Régimen Cambiario)*. The convertibility plan dissipated: following the introduction of the new law, the peso became disconnected from the dollar, though for many the law was only stating what had already been obvious for years. The value of national currency depreciated. Consequently, the new government had to renegotiate existing contracts with over sixty private companies that had taken over public sector enterprises during the 1990s.[69] President Duhalde created a Renegotiation Commission in the Ministry of the Economy, and the commission became tasked with renegotiating the contract with Aguas Argentinas. Regulatory agencies like ETOSS continued to operate at this stage, but the Renegotiation Commission had additional powers, such as blocking their ability to carry out extraordinary tariff revisions, which they had declined to do anyway in the middle of the crisis despite Aguas Argentinas' requests.

The new contracts would be denominated in pesos. This change put the private companies in a radically different situation and one they were not comfortable with—before they had been contracting debt in dollars but also recovering bills in currency that was pegged to the dollar. Now, the cost of those same dollars in Argentine pesos had tripled. According to the consortium, as of 2001, Aguas Argentinas had invested US$120 million in initial capital,

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[68] Krauss, Clifford. 2001. "Argentine Leader Declares Default on Billions in Debt." *New York Times*. 24 December.
[69] The renegotiation would be led by the Unidad de Renegociación y Análisis de Contratos de Servicios Públicos, Ministerio de Planificación/Ministerio de Economía y Finanzas Públicas.

US$706.1 million mainly from multilateral loans, and the rest from cash flows from the utility, amounting to about US$1.7 billion.[70] Between 1994 and 2001, Aguas Argentinas had maintained an average return on investment of 20.3 percent (Azpiazu and Forcinito 2004, 83). As multiple private operators of formerly public services balked and attempted to raise tariffs in response to the changing circumstances, there was a public outcry. Many companies even launched public relations and advertising campaigns in an effort to show the investments and corresponding benefits that had been achieved under privatization: for instance, Aguas Argentinas and the electric company Edesur launched ads in the media, while the gas companies Gas Natural BAN and Metrogas published ads in magazines. As one company director explained, "The companies that are doing the PR campaign, more than doing it to defend the privatizations, they're doing it to justify to society the price increases…the government is asking them to publicly defend the adjustment."[71]

The renegotiation also opened a new public discussion about the quality of services, investment plans, and whether users' interests were fully being taken into account. As of the end of 2001, ETOSS had already fined Aguas Argentinas various times amounting to 15.3 million pesos, mainly for non-compliance with the investment plan for expanding services and sewage treatment, as well as for service quality and for not providing adequate information; Aguas Argentinas had paid approximately 56 percent of the fines (Ordoqui Urcelay 2007). According to Azpiazu and Forcinito (2003), residential tariffs had gone up by approximately 88.2 percent between May 1993 and January 2002, and tariff increases disproportionately affected low-income groups, with customers paying the minimal tariff experiencing an increase of 177 percent

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[70] ICSID proceedings, p. 15.

[71] Rebossio, Alejandro. 2002. "Rebelión de usuarios en Argentina: Los operadores contraatacan con anuncios sobre la bondad de las privatizaciones y de su gestión." *El País.* 10 November.

whereas the top 10 percent saw increases of 44 percent during the same period (2). In 2002, 84 percent of those surveyed by Latinobarómetro about whether privatization had been beneficial to the country disagreed or strongly disagreed (see Table 4.6).

Table 4.6. Public Opinion in Argentina: "Privatization of state companies has been beneficial to the country"

	1998	2000	2001	2002	2003	2005	2007	2009	2010	2011	2013
Agree // strongly agree	39%	26%	17%	14%	12%	25%	19%	18%	29%	32%	35%
Disagree // strongly disagree	48%	69%	78%	84%	84%	70%	75%	58%	60%	59%	49%
No answer	2%	0%	1%	0%	0%	6%	0%	1%	0%	0%	3%
Don't know	11%	5%	4%	2%	4%	-	5%	23%	10%	8%	12%
(N)	*1,200*	*1,200*	*1,200*	*1,200*	*1,200*	*1,200*	*1,200*	*1,200*	*1,200*	*1,198*	*2,392*

Source: Latinobarómetro

The renegotiation process further eroded an already strained relationship. Local consumer groups and other civil society organizations added their grievances, mobilizing about the failure of Aguas Argentinas to fulfill its contract obligations, hold public meetings and adequately address issues like access, quality of water, and flooding caused by changes in the operations of water extraction from the Puelche aquifer. Aguas Argentinas was criticized on multiple fronts, by the Renegotiation Commission (*Comisión de Renegociación)*, the ombudsman's office (*Defensor del Pueblo de la Nación*), and by the ETOSS Users' Commission (*Comisión de Usuarios de ETOSS*). Neighborhood associations and residents of neighborhoods in Greater Buenos Aires like Barrio Conet and San Pedro in Isidro Casanova and La Matanza, which still lacked connections to the water system, made appeals along with human rights organizations like CELS (*Centro de Estudios Legales y Sociales*) to ETOSS and Aguas Argentinas. Others demanded that the neighborhoods at least be provided with water trucks with quality water until

the network was extended.[72]

In addition to grievances based on water access, problems also arose with water management. One of the most visible cases of mobilization around water issues in Greater Buenos Aires had to do with flooding. In a writ for amparo (*recurso de amparo*) or protection of constitutional rights, neighborhood associations from Banfield, Adrogué, and Turdera, along with an environmentalist organization *Asociación Civil Nuevo Milenio (Miguel Spinosa)*, asserted that practices of Aguas Argentinas had led to the rise of the water table, and that the state failed to step in and regulate to address the problem. Residents of other neighborhoods, including Villa Independencia, Llavallol, Lomas de Zamora, Calzada, and Mármol joined the lawsuit. Aguas Argentinas argued that they were fully in compliance with the contract. The plaintiffs relied on a 2002 report from the *Instituto Nacional de Agua*, which linked the rise in the water table to the fact that Aguas Argentinas had stopped extracting water from the Puelche aquifer. Aguas Argentinas, on the other hand, argued that they had closed those wells and shifted to taking water from the La Plata River because the old wells were polluted with nitrates. They also explained that the water table had risen given a period of intense rain and had little to do with their water extraction activities. With instructions from ETOSS, Aguas Argentinas reopened five wells to extract water from the aquifer.[73]

In the broader political sphere, social protests continued. In many places, riots and protests turned into clashes with police in the street and were met by a heavy-handed state response. For example, in Avellaneda, one day when hundreds of *piqueteros* assembled to block the Pueyrredón bridge, violence broke out: police tried to scatter protesters with tear gas,

[72] ACIJ, CELS, and COHRE. 2009. "El acceso a agua segura en el Área Metropolitana de Buenos Aires: Una obligación impostergable." Buenos Aires: ACIJ, CELS, and COHRE.
[73] Caruso, Liliana. 2002. "La Justicia ya investiga por qué sube la napa." *Clarin*. 10 July. Pp. 1-3.

protesters threw rocks and brandished sticks, shots were heard, a bus was set on fire. In one afternoon, ninety *piqueteros* were wounded and 160 were arrested. Darío Santillán and Maximiliano Kosteki, two *piqueteros* in their twenties, were dead. The government said they had warned the radicalized groups not to make trouble; a broader alliance of workers and civil society groups came out to protest at the Plaza de Mayo about what had happened. The Central de Trabajadores Argentinos (CTA) organized a strike.[74]

Meanwhile, major political changes were under way. Néstor Kirchner was elected and would take office in May 2003. His arrival led to a shift in the renegotiation process and the creation of a new administrative unit, the UNIREN (*Unidad de Renegociación y Análisis de Contratos de Servicios Públicos*), under the Ministry of the Economy and the Ministry of Federal Planning, Public Investments and Utilities, as well as a new law that would give additional powers to the executive in the renegotiation process, stating that executive decisions would not be limited by prior regulatory frameworks or concession agreements. Meanwhile, Domingo Cavallo—who was Argentina's economic minister from 1991 to 1996, and briefly again in 2001, and who, incidentally, had signed the initial contract with the consortium on behalf of the Argentine government—had been indicted on corruption charges.[75] María Julia Alsogaray--who had worked for ENTEL and been Menem's Secretary of Natural Resources, as well as heading one of the major renegotiations with Aguas Argentinas—would be sentenced on corruption charges soon after.[76] The country was at a turning point.

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[74] "Dos muertos al enfrentarse piqueteros con la policía." *La Nación. 27 June 2002.*
[75] In April 2002, Cavallo was indicted on charges that he approved more than $100 million in illegal arms sales to Croatia and Ecuador in the 1990s. He was held for 64 days on a military base outside Buenos Aires; in June 2002, a federal appeals court ordered his release. Rohter, Larry. 2002. "Argentine Ex-Minister Freed After Jailing on Arms Sale Charges." New York Times. June 8.// Rohter, Larry. 2002. "Argentina's Fallen Economic Czar Is Held in Arms Deal." New York Times. April 4.
[76] Centro de Derechos Humanos, Facultad de Derecho, Universidad de Chile. Base de Datos Casos de Corrupción, 1998-2008.

Failed Privatization: Reversal and the Return to the Public Sector

No one would have imagined that the water and sewage of Buenos Aires would become the topic of high-level diplomatic discussions, but when President Néstor Kirchner went to Paris to meet with President Jacques Chirac in 2005, the concession inadvertently became an important part of their conversation. It was rumored that Chirac had said to the delegation that the Aguas Argentinas situation was "a little stone in the shoe" and that "it was necessary to get rid of it to keep walking." Kirchner's Minister of Economy, Roberto Lavagna, gave an interview on Radio France Internationale, discussing the negotiation and saying that the Argentine government had considered a tariff increase of sixteen percent and providing over $100 million pesos in financial assistance to the company for infrastructural investments, whereas the concessionaires had requested greater tariff increases, upwards of sixty percent, and a larger investment assistance figure.[77]

Meanwhile, back home in Buenos Aires, civil society groups added to the tension. Neighborhood associations, environmentalist civil society groups, and water engineers and other professionals protested in front of the French Embassy calling for Suez to give up the concession and get out of the country. As one of the protest participants, Daniela Tosco from the Neighborhood Assembly of Lomas de Zamora (*Asamblea Barrial Lomas de Zamora*) said to *La Nación,* "We came to denounce everything that Aguas Argentinas has done and is doing, and we came to demand the fall of the concession for multiple breaches with respect to the community and the terms of the contract." But they did not only blame Aguas Argentinas; they also

[77] Juri, Daniel. 2005. "Aguas Argentinas, en el centro de la reunion Kirchner-Chirac." *Clarín*. 20 January; Cufré, David. 2005. "A Francia por el agua." *Página 12*. 19 January; "Admitieron que la negociación con Aguas Argentinas es compleja." *La Nación.* 20 January 2005; Moreno, Sergio. 2005. "Con la deuda y Aguas en la agenda." *Página 12*. 20 January.

expressed general grievances about the lack of investment in the infrastructure and the quality of water services. They demanded that the state rescind all of the concession contracts and the recovery by the state not only of "water resources" but also the "recovery of the company under democratic management of workers and users."[78]

From the perspective of Aguas Argentinas, following price freezes and the conversion of tariff charges into the devalued peso, the contract was no longer an attractive project, at least not compared to the relatively high return on investment the company had been consistently getting until the crisis. The government had offered to take over some investment responsibilities and to have Aguas Argentinas continue as an operator, but this was not an option the company was interested in and the relationship between it, the regulatory agency, and local groups was only deteriorating. The political climate grew increasingly tense when in September 2005, the company made a move to get out of the contract and stop the concession, but the request was denied. In the midst of negotiations, the Argentine government finally abruptly terminated the concession on March 21, 2006 (*Decreto 303/2006*). The government took over physical assets and demanded the performance bond that the consortium had put up when they took over the utility.[79]

The case of the contract rescission went to the ICSID as a result of the bilateral investment treaty, and Aguas Argentinas initiated other proceedings against ETOSS and the government of Argentina in the national court system as well. ICSID proceedings had already

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[78] Participating groups included the Foro en Defensa del Río de la Plata, Foro Argentino en Defensa del Agua, Foro en Defensa del Río de La Plata y su Ecosistema, Foro Hídrico de Lomas de Zamora, ASDUC, Filatina, Cabildo Abierto de Hurlingham, Foro Hídrico Bonaerense, and Vecinos en Emergencia Hídrica de Almirante Brown. The protesters were called by an inter-neighborhood network of neighborhood associations, the Asociación Interurbana de Vecinos Autoconvocados, "Reclamo por la reestatización de Aguas Argentinas frente a la embajada de Francia." *La Nación.* 20 January 2005.

[79] High-level employees of Aguas Argentinas stayed on to work for Aguas Argentinas residual, later becoming consultants for Aguas Argentinas residual. Todavía están cobrando la deuda de años anteriores. Also, note that at this time, the consortium members took over Aguas Argentinas' loans from the multilateral lending agencies.

been in the works since April 2003, when Aguas Argentinas and its consortium members from France, Spain, and the UK filed a request for arbitration against the Argentine Republic with the International Centre for Settlement of Investment Disputes. As the administrative part of the proceedings got under way, five NGOs from Argentina filed a petition to participate as *amicus curiae.* The organizations were the *Asociación Civil por la Igualdad y la Justicia*, the *Centro de Estudios Legales y Sociales*, the *Center for International Environmental Law*, the *Consumidores Libres Cooperativa Ltda. de Provisión de Servicios de Acción Comunitaria*, and the *Unión de Usuarios and Consumidores*—some of the same non-governmental organizations and consumer associations that had been involved with taking in complaints from consumers and working with neighborhoods lacking access to quality water. The first hearing on the merits of the case took place in October and November 2007.[80] Financial losses were at the center of the dispute. The consortium members Suez and Vivendi (France), AGBAR (Spain), and AWG (UK) sought redress for alleged losses of US$1.0192 billion as of June 2008, while Argentina responded that it "sustained injuries valued at $2.4 billion as a result of various alleged failures by the Claimants to fulfill their obligations under the Concession" (ICSID 2010).[81] Members of the consortium would also end up in legal proceedings over loan defaults of their own. Meanwhile, the cycle continued, as international lenders gave Argentina new loans for new projects in the sector, including a loan to improve sewerage services in the Matanza-Riachuelo River Basin, to reduce industrial pollution, and other programs to clean up the watershed.[82]

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[80] ICSID. 2010. "Proceedings between Suez, Sociedad General de Aguas de Barcelona S.A., and Vivendi Universal S.A. and The Argentine Republic, ICSID Case No. ARB/03/19: Decision on Liability." Washington, DC: International Centre for Settlement of Investment Disputes.

[81] "The question that the Tribunal must answer is whether Argentina's treatment of the Claimants through its legislation, regulations, and administrative actions violated its commitments under the BITs" (p. 23). On April 9, 2015, ICSID ruled in favor of Suez, concluding that Argentina has to pay $405 million in damages to the company.

[82] The project includes $694 million for sanitation, $60.3 for industrial pollution abatement, $65.5 for environmental territorial management, and $18.2 million for institutional strengthening and project management. World Bank.

Though the Buenos Aires concession was the most visible and central one, municipal and provincial governments had gone along with private sector participation in twelve of the country's twenty-three provinces.[83] However, in half of these cases, the contracts were canceled before the term of the concession was up: major contracts were prematurely canceled in Tucumán province (operations stopped in 1998, approximately three years after contract signed and five years after bid was won), Mendoza province (operations stopped in 2004, approximately six years after contact signed), Salta province, Buenos Aires province (operations stopped in 2002, approximately three years after contract signed), Catamarca province, and Santa Fe province (operations stopped in 2006, approximately eleven years after contract signed). As of 2014, only one major concession, in Córdoba province, which serves approximately 1.2-1.5 million people was still in place and generating substantial controversy.[84] The remaining concessions are all smaller, located in the north of the country, and the majority are run by Argentine capital, with Corrientes, Santiago del Estero, Misiones, and Formosa provinces at the larger end and with five additional utilities serving concession areas with less than 100,000 connections.

"Implementation Status and Results Report." *Matanza-Riachuelo Basin (MRB) Sustainable Development Adaptable Lending Program (P105680)*. http://www.worldbank.org/projects/P105680/matanza-riachuelo-basin-mrb-sustainable-development-adaptable-lending-program?lang=en

[83] Municipal or provincial governments attempted private sector participation in the water and sanitation sector in the Buenos Aires, Corrientes, Catamarca, Cordoba, Formosa, La Rioja, Mendoza, Misiones, Salta, Santa Fe, Santiago del Estero, and Tucuman provinces. The remaining provinces in which PSP was not attempted include a group of central southern provinces (La Pampa, Neuquén, Río Negro, Chubut, Santa Cruz, Tierra del Fuego), northern provinces (Jujuy, Chaco), eastern provinces (Entre Ríos), and western provinces (San Juan, San Luis).

[84] The Comisión Popular por la Recuperación del Agua (The Popular Commission for the Recovery of Water) has been organizing campaigns criticizing the Córdoba concession Suez-Aguas Cordobesas since 2005. Though there was little initial support, organizing and protests began to emerge at the neighborhood level following tariff increases. The three main demands of the mobilizations have been: 1) to declare water as a public and social good, not subject to the rules of the market due to its status as an essential human right; 2) to annul/rescind with cause the concession contract with Suez-Aguas Cordobesas, without paying damages; and 3) to create a public sector water and sanitation, with public management as well as direct and democratic participation by users and workers.

Table 4.7. Water Services in Argentina: Stages of Privatization and Return to the Public Sector

Year	Event
1976-1980	Water services sector decentralized to the provincial level
1989	After Menem wins the election, legislation is implemented authorizing privatization across sectors; public services can be privatized without public consultation
1993	In Greater Buenos Aires, the Obras Sanitarias de la Nación (OSN) utility is transferred to Aguas Argentinas; Generales des Eaux/Aguas de Aconquija wins privatization bid in Tucumán province
1995	Concession contracts signed in Formosa, Santa Fe, Santiago del Estero, and Tucumán provinces
1997	Concession contract signed in Córdoba province
1998	Concession contracts signed in Mendoza province Aguas del Aconquija stops operations in Tucumán province
1999	Concession contract signed in Misiones and Salta provinces OSBA/Azurix starts operations in Buenos Aires province
2002	OSBA/Azurix stops operations in Buenos Aires province
2004	Operations stopped in Mendoza province
2006	Contract with Aguas Andinas is rescinded Contract with Aguas Provinciales de Santa Fe is rescinded (Suez/Agbar)

Aguas Argentinas was replaced with the state-run utility *Aguas y Saneamiento Argentinos (*AySA), which immediately began to make visible strides toward large-scale infrastructure investments in the system under the banner "agua para todos" (water for all) in its service area in the Federal Capital and in 17 districts of the Buenos Aires metropolitan area.[85] Following the criticisms of the privatization era, AySA developed a strategic plan for 2011-2020, setting targets of providing universal water and sanitation services in its area of operation by 2018, covering approximately 1.5 million people without access, as well as doing infrastructural maintenance and improvements. Currently approximately 84 percent of the population served by AySA throughout Greater Buenos Aires has access to running water, leaving 16 percent or approximately 1.5 million people underserved, and approximately 59 percent of the population

[85] For a human rights perspective, see Fairstein (2008). Fairstein, Carolina. 2008. "La política de agua y saneamiento para el Área Metropolitana de la Ciudad de Buenos Aires: una deuda pendiente para alcanzar la integración social y urbana." Pp. 365-99 in *Derechos humanos en Argentina: Informe 2008*, edited by Centro de Estudios Legales y Sociales. Buenos Aires: Siglo Veintiuno.

has access to sewerage services, with 41 percent or approximately 3.5 million people lacking it.[86] In addition to infrastructural improvements and plans, AySA has made significant efforts to link its organizational identity to the original public sector company *Obras Sanitarias de la Nación,* through exhibits in the water museum, programming for kids, and the presentation of the AySA building and historical collection of objects and documents as an important part of Argentine cultural heritage that "strengthens Argentine identity." The most visible change, however, has been the pace and fanfare with which new public works have been constructed. AySA froze its tariffs for 10 years, while costs have risen. One recurring concern has been the financial sustainability of the new system and inequalities in how different utilities are run in different parts of the country. For example, a 2011 article in *La Nación* took a critical tone with respect to AySA's spending, AySA drew a deficit above the $2200 million pesos provided by the government budget during the first nine months of the year:[87]

> The *porteños* or the inhabitants of the 17 districts of the Buenos Aires metropolitan area that are supplied by AySA, regulated by the Ministry of Federal Planning, pay $0.66 per cubic meter of water or sewerage billed. Residents of Neuquén pay 77% more; those from Santa Fe pay 89% more; and residents of Mendoza, 91% above what is asked of *porteños* for the same service. The company accounts, it's clear, are very different. AySA already needed $2245 million this year to function, $1103 million more than during the same period last year.[88]

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[86] In Latin America, Buenos Aires is approximately in the middle in comparison with other urban areas. For example, higher rates of water coverage have been achieved in Santiago (Chile), Bogotá (Colombia), Distrito Federal (Brasil), Distrito Capital (Venezuela), Lima (Peru), and Guayaquil (Ecuador). Higher rates of coverage for sewerage connections have been reached in Bogotá (Colombia), Santiago (Chile), Distrito Federal (Brasil), Lima (Peru), Guayaquil (Ecuador) and others. Note that Aguas Bonaerenses (ABSA) provides water and sanitation services in Buenos Aires province.

[87] Cabot, Diego. 2011. "Recaudarán más, pero seguirán perdiendo: Las empresas que distribuyen electricidad, gas y agua están en rojo, y los recortes a los subsidios no parece que vayan a solucionar los problemas que las afectan." *La Nación*. 20 November.

[88] "Los porteños o los habitantes de los 17 distritos del conurbano bonaerense que son abastecidos por Agua y Saneamientos Argentinos (AySA), empresa que es regulada por el Ministerio de Planificación Federal, pagan $0,66 por cada metro cúbico de aguas o cloacas facturado. Los neuquinos pagan un 77% más; los santafecinos, un 89% más, y los mendocinos, un 91% por encima de lo que se les pide a los porteños por el mismo servicio. Las cuentas de las empresas, claro está, son muy distintas. AySA ya necesitó este año $2245 millones para funcionar, 1103 millones más que en el mismo período que el año pasado."

APLA (Planificación). ERAS. As Clemente Etchegaray, the head of the Users' Syndicate (*Sindacatura de Usuarios*) bringing together consumer associations, reflected:

> It's like a pendulum. First we go to the state, then comes the current of privatizations. Now we are again going back, to a more moderate state model than before. And if you pay attention, the actors stay the same, because the unions…the presidents of the unions are the same, the workers stay the same. In other words, what changes is the ideology of the moment…and of what I think of as the collective consciousness of the moment.[89]

With respect to ownership structure, the new utility is 90 percent owned by the state and 10 percent owned by its workers through the *Programa de Participación Accionaria*. They have introduced two additional programs to address the shortcomings of the privatization period: a participatory management model (*Modelo Participativo de Gestión*) and the Water + Work plan (*Plan Agua + Trabajo*). The former is intended to create institutional spaces to give a greater voice to unions and civil society groups in the water company, while the latter is intended to provide temporary employment to construct water and sanitation in neighborhoods that lack it. Some civil society groups, however, have been skeptical of the new model, even though they support the return of the utility back to the public sector. As Andrés Napoli, the director of FARN, an established environmentalist organization, commented:

> I have my own ideas about the fact that this company should be a public utility, fundamentally because in a country like Argentina, it's not about providing water from the tap or sewerage service to those who already have it, but rather about expanding the service to those who don't…and this impacts directly on environmental issues…The public model seems like a good model to me, a model that should privilege service expansion.

While upon taking over, AySA clearly prioritized service expansion, from the perspective of some civil society groups, the organization was still somewhat of a mystery in terms of new institutional arrangements. As Napoli pointed out, the new arrangement was set up so that all the

[89] Interview by author with Clemente Etchegaray, Sindicatura de Usuarios within former ETOSS, Buenos Aires, Argentina.

major organizations (AySA, APLA, and ERAS) are dependent on the Ministry of Planning and there is little opportunity for independent oversight; even ERAS, the successor to ETOSS, had become much less active as an organization and the space within it for civil society participation was not being used. As he put it, "there's no regulation" and "there's no participation, either," with the exception of other instances like the Supreme Court-ordered cleanup of the Matanza-Riachuelo basin, which created an outside channel for overseeing the public works that AySA has committed to carrying out, with the participation of civil society groups.[90] Therefore, though AySA was financed and administered by the state, there was no oversight, say, when the utility would outsource a part of the service to a third party, and there were not always institutionalized mechanisms of obtaining information about its activities. Some of the groups working in the *conurbano* have also expressed skepticism about the new public company; a member of the movement group Frente Popular Darío Santillán, an organization that developed from the *piquetero* mobilizations of the financial crisis, for example, said that while their group fought to get rid of privatization, they did not find the public company to be especially responsive and would continue to mobilize in support of local demands for expanding water and sewerage provision, as well as proposing ways to link those demands to employment opportunities. Nevertheless, in addition to grassroots organizing and street protests, their group had also managed to have meetings with officials from the national, provincial, and municipal governments to discuss public works needed in the area.[91] Water and sanitation was not the only industry to be returned to the public sector (see Table 4.8).

[90] Interview by author with Andrés Napoli, FARN, Buenos Aires, Argentina.
[91] Interview by author with member of Frente Popular Darío Santillán, Lomas de Zamora, Argentina.

Table 4.8. Privatization and Reversals Across Sectors in Argentina, 1990s-2000s

	Sector (Company)	Date privatization begins (Date renationalized)
Privatized and later renationalized	Airlines (Aerolíneas Argentinas) Water (Obras Sanitarias de la Nación) Railroads Petroleum (YPF) Postal service	November 1990 (2008) December 1992 (2006) Partly renationalized June 1993 (2012) (expropriated from Repsol/Spain) November 1997 – 2003
Remains privatized	Telecommunications Gas (Gas del Estado) Electricity (SEGBA)	November 1990 December 1992 July 1993

Conclusion

The privatization has been characterized as a failure by those involved on various sides, ranging from the French company Suez that ran the Aguas Argentinas concession, to Argentine government officials, to the water sector's regulatory agency and consumer groups. Would the privatization have remained in place had the 2001 crisis not taken place, or was the contract moving in the direction of falling apart? Would the privatization have been attempted had the 1989 crisis not taken place? Institutional instability had become a chronic condition in the Argentine state. What is almost more surprising in this case is that foreign multinationals believed that their own technical and administrative capacity, combined with international expert support for the design of new institutions, would be enough to transform how water and sanitation services work in the country, allowing them to expand into yet another 'emerging market.' At the same time, the failure of the privatization led the Argentine government to turn its attention to water and sanitation, aiming to improve it on its own terms, while building on some of the technical and managerial practices that had been introduced by Aguas Argentinas and absorbed by the team of people who went on to run AySA. The ability of the public sector to improve the water and sanitation system throughout the country remains to be seen.

CHAPTER 5 Conclusion

In this study, I compared the process of privatizing water and sanitation utilities in Chile and Argentina, focusing on the Santiago Metropolitan Region and Greater Buenos Aires. Over the past thirty years, Latin America has been the site of substantial efforts to privatize urban water and sanitation services, and these two cases are two prominent examples of privatization experiments, as a consequence of which, the state's participation became reduced to primarily a regulatory role while multinational private firms came to occupy service provider roles that had traditionally been occupied by the public sector. I showed that contrary to the dominant discourse constructed around the private sector model as fixing weak state capacity and bringing to the table investment capability that would revitalize crumbling water and sanitation infrastructure that had faltered as a consequence of chronic underinvestment by the state—a narrative which was promoted, and continues to be promoted by economists, policymakers, and international experts supportive of pro-market policies—the empirical story turned out to be quite different.

In Chile, public sector water and sanitation utilities managed to achieve relatively high performance indicators for increasing connections to running water and to the sewerage network prior to privatization, while the sale and concession of utilities were justified on the basis of requiring investment for wastewater treatment plants as Chile looked to become more integrated into global trade. The state gradually prepared utilities like EMOS to be transformed into Aguas Andinas, improving their performance until selling them off or effectively indefinitely leasing

them to the private sector. By contrast, in Argentina, where connections to running water and to the sewerage network were low, especially in the informal settlements and marginalized communities in Greater Buenos Aires, privatization under the Aguas Argentinas concession failed to resolve longstanding deficiencies. However, after more than a decade of conflict and the withdrawal of the private company, the failed privatization inadvertently led the government to pay attention to the water and sanitation sector, pouring funding into new public works alongside the creation of the new public sector company Aguas y Saneamiento Argentinos (AySA).

I located this narrower organizational story of water and sanitation privatization in the major political and economic transformations unfolding in the two countries at the time these policy changes were decided and implemented. In Chile, I have sought to show how the project of commodifying water resources and privatizing water and sanitation utilities had its roots in Pinochet's dictatorship, which left behind an institutional legacy that political elites would deepen during the democratic transition and civil society groups would begin to question only gradually after an initial period of reconstituting themselves and protecting a fragile democracy.

In Argentina, I showed how water and sanitation privatization was implemented rapidly alongside the mass privatizations of the early 1990s, and how it gradually unraveled as the state attempted to provide oversight through the regulatory agency while trying to set up new institutional channels as a form of damage control to channel and absorb grievances and demands of civil society groups and the public. Given the initial absence and slow emergence of union critiques of Menem's pro-market policies, neighborhood residents, consumers, and environmentalists mobilized in fragmented ways to express particular grievances to the state and the private sector, as well as protesting in the street. These grievances would be swept up in the

mass social protests that shook Argentine political and economic institutions in the 2001-2002 crisis, as critiques of the pro-market policies of the 1990s gave way to a new currency regime that completely changed the situation of foreign investors in the country and, eventually, to a new political environment led by the Kirchners which would echo the politics of the Peróns and would seek to bring back the strong role of the state and social welfare policies.

The Chilean and Argentine cases, as understood through the lens of the urban water utilities in the Santiago Metropolitan Region and Greater Buenos Aires, show that local political and economic institutional contexts are definitive with respect to how dominant policy paradigms are implemented and the outcomes that ensue. Despite the application of a similar model with the involvement of a similar set of actors—including administrators and technical expertise from the multinational corporation Suez, the presence of advisers from multilateral organizations like the World Bank and UN, and the creation of a regulatory agency to facilitate the transition—the Chilean case resulted in the most comprehensive privatization of urban water utilities on the continent, whereas the Argentine case yielded some of the most visible experiments and rejections of the privatization model by the state and civil society groups. In this sense, this study speaks to how do local political and economic institutional contexts mediate the introduction and implementation of a dominant global policy paradigm.

In this study, I have sought to add to what we know about the politics of free markets by examining the extension of the market paradigm to public utilities, and particularly, to the case of water and sanitation. In political and economic sociology, we talk frequently about neoliberalism as a massive project and about the privatization of state-owned enterprises as just one feature of this broader ideological shift. Yet we still have much to learn about the case of

water in particular. My sense when starting this project was that this was an important story to trace within well-researched terrain because there was something particular about water, its multidimensionality, and its connection to both social inequality and the environment. I investigated why it was that the process of implementing water privatization led to such different trajectories and outcomes, despite expectations by some of increased efficiency, access, and investment, and expectations by others of widespread social protest. I also suggested that failed privatization in fact can serve as a trigger leading to renewed central state intervention in the water and sanitation sector.

Water, Nature, and Society

In this study, I have focused on urban water utilities, especially on how the struggle over private and public models of provision has played out in large cities where the water supply system requires a large infrastructure. Cities in the global South experienced population growth and urbanization, which, coupled with limited resources and investment in the water and sewerage infrastructure, led to problems with access to plentiful quality water supply and sanitation services, especially for the urban poor. In this sense, the privatization model was introduced as a means to fill in public sector deficiencies and to connect disconnected populations that had been left out of basic service delivery, yet did so with mixed outcomes. However, the production of clean and sufficient potable water continues to be an issue in different contexts, including rural areas. Moreover, water for drinking and daily household consumption is just one way in which we depend on water resources. The larger question that remains is about how social organization and political economic conditions intersect with water

resources to generate particular patterns of its availability, distribution, and governance. As the environmental justice literature shows us, inequality with respect to accessibility of water constitutes another dimension of socioeconomic inequality. A key question revolves around the conditions under which people begin to treat water as political.

Privatizing Water in the City: Paradigm Shift, Policy Implementation, and Social Responses

This study also reveals a series of more specific findings about the diffusion of policy ideas, the process of implementing privatization, and state-society relations and civil society mobilization around water politics. In both Chile and Argentina, international factors and national politics intertwined to create openings for the adoption of policies that appeared unlikely both from the perspective of organizations like the World Bank and the Chilean and Argentine governments just several decades earlier. The force with which ideas contained in the Washington Consensus were being rolled out across the world was important, both directly, because international financial institutions spread paradigms like privatization in the global South, and also indirectly, because increasing emphasis on other macroeconomic policies like exports and trade created new lenses for viewing water and sanitation sector problems. Furthermore, the existence of a growing transnational expert community in the water and sanitation sector—especially engineers connected to organizations like AIDIS and the Pan American Health Organization—that focused on improving water and sanitation with the support of growing international interest and funding in the sector beginning in the 1980s also facilitated the transformation of policy models into practical changes. Communities of practice grew out of

these networks that also became conduits for ideas and information about how policy experiments like privatization were being implemented.

However, the latter developments combined with politics on the ground, as adoption happened through both longstanding national reform processes that originated with both internal and external financial pressures as well as internal ideological shifts, as in the case of Pinochet's military government and the "Chicago Boys" in Chile, and Menem's shift away from statist policies in Argentina. The technocratic core in each country was permeable in different ways to international ideas and pressures; whereas in Chile, economists and other experts trained abroad internalized particular ways of thinking about the economy and applied their knowledge in new and experimental ways to their local context, in Argentina, local technocrats were in contact with international experts and as a result perhaps implemented policy models without as much adaptation to local context. Teichman (2001), for example, proposes that precisely because Argentina did not have a technocratic core that was ready to implement market reforms in 1989, but policymakers did have ties to the IMF and World Bank because of negotiations taking place during the economic crisis, international technocrats ended up playing a much more central role in market reforms in Argentina than in Chile or Mexico. Finally, internal considerations of where the government chose to direct its resources also mattered. For example, in Chile, water utilities such as EMOS came to be viewed as a source of revenue at a time when the government was looking for ways to increase spending in other areas such as health and education. By contrast, in Argentina, concession contracts were not a major source of revenue, but a means to shift much of the responsibility for the water supply and sanitation infrastructure away from the state.

Several additional features of the cases pointed in unexpected directions. First, in

explaining the implementation outcome, the extent of privatization did not appear to matter much but the pace of institutional change did. Santiago and several other water and sanitation utilities underwent the most radical form of privatization, including divestiture of assets, whereas the Buenos Aires case was intended to be a 30-year concession, leading one to expect at the outset that perhaps there should be more resistance to the more extreme form of privatization than the lighter form; the opposite was true. Second, water scarcity was more of a constraint in the Santiago Metropolitan Region, suggesting the possibility of more conflict over privatization, whereas water resources were relatively abundant in Greater Buenos Aires, albeit heavily polluted; nevertheless, water privatization went ahead in Chile with little debate about the consequences of scarcity for consumers until after the privatizations were under way. Finally, water and sanitation unions mobilized against privatization in Chile, whereas they were largely coopted into the initial process in Argentina, yet these initial instances of mobilization or lack thereof did not lead to the logical outcomes; unions did not stop privatization in Chile, and unions in Argentina changed their stance and became oppositional toward privatization toward the end of the concession, when there were cracks in the model both with respect to the contract implementation and the relationship between the regulatory agency and the private consortium.

When the paradigm was applied across countries, experts and government officials alike asserted that privatization could solve problems of efficiency, investment, and administration plaguing the water and sanitation sector, leading to better performance outcomes and increased access for people lacking connections. Yet as it turns out, water privatization has been associated with the best performance outcomes and transformed institutions in a lasting way where the state slowly and methodically prepared the utilities to be privatized. This preparation meant gradually

implementing measures such as self-financing, for example, such that the state took responsibility for tariff increases; even where water prices tripled, the state absorbed the complaints and protest using the justification of improving services. The gradual reform not only resulted in protests that could not be linked directly to privatization, but also fragmented protests by making changes incrementally. Finally, water and sanitation utilities that were already high performing before privatization, including in terms of coverage, were also likely to be attractive to private firms and most likely to be labeled success stories after privatization.

Meanwhile, where the state actually had limited capacity and resources to extend access to water and sanitation, and low coverage rates with many poorer users left outside of the system, the privatization did not work. What this suggests is that while privatizing water and sanitation services may be feasibly attempted in many settings, and water and sanitation provision can be converted from a natural monopoly run by the public sector into a regulated business, the model does not offer much hope for settings in which water and sewerage organizations are underperforming and much investment and institutional change are needed; even firms with substantial technical know-how, new technologies, and experience are unlikely to be able to "fix" water and sanitation sector problems and are poor substitutes for weak state capacity to deliver basic services.

From the perspective of development organizations and multilateral lending institutions, the expectation was that private companies would overcome the financial and administrative shortcomings of state-owned enterprises, bring additional resources to the table, and introduce practices that would make the sector more efficient, thereby improving water and sanitation services. However, the companies introduced their own limitations. Instead of a continued

deepening and expansion of the privatization model, then, international companies began to abandon the water privatization experiment and to pull out of Latin American countries, which was often celebrated by civil society groups and even local political and business elites. The major problems from the perspective of civil society were the tariff increases and lack of reliable information about the internal workings of the companies.

Private sector companies are not going to be motivated to take financial risks on behalf of concepts like universal access or socioeconomic human rights; their organizational survival depends on making a profit, and making a profit is not necessarily compatible with providing access to clean drinking water and sewerage services at low cost. This should not be surprising, but the assumptions of the neoliberal model and the Washington Consensus became so pervasive that many policymakers became convinced, and sought to convince others, that the answer for filling in gaps in weak state capacity was to be found in the private sector. Yet when the private sector encountered weak state capacity, there was room for other kinds of problems. For example, in one contentious case of attempted privatization in Ghana, a deal between the Ministry of Housing and Works and Azurix, the Enron subsidiary that has also had a contract in the province of Buenos Aires, fell apart because the companies that lost (Suez and Vivendi) alleged that Azurix gave US$5 million in kickbacks to Ghanaian politicians, forcing the bidding process to start again (Amenga-Etego and Grusky 2005). Even in recent years, following disenchantment with the privatization model, many policymakers have moved toward a softer public-private partnership set of policy prescriptions. Yet it is important to remember that the rejection of more radical water privatization experiments has emanated from civil society and states as well as from the private sector, which reevaluated the appeal of the global market in environmental

services. For example, as the chief of executive of SAUR International J.F. Talbot put it, "water pays for water is no longer realistic in developing countries: even Europe and US subsidize services…Service users can't pay for the level of investments required, nor for social projects" (United Nations Human Settlements Programme 2006, 173).

The corollary to this point, however, is that the state—whether through a national system or municipal governments—is not going to automatically provide a good service either. Calling demands about water and sanitation and mobilization against privatization "political" during the era of private sector experiments became a way to dismiss questions of inequality, power, and accountability. While issues of corruption or linking utilities with political favors continue to be problematic features of national and local government, there is no getting around the question of politics in the provision of basic services. In fact, in settings where water and sanitation utilities are returning to the public sector, the political dimension will be especially important: it is political pressure that forces government officials to make room in their budgets and to maintain a subsidy system and give priority to expanding access to water and sewerage connections at a low cost, especially in informal settlements where the benefits of doing so are going to be primarily "social," and it may be political demands for accountability and communication with the public that may lead to improvements in the administration of utilities. The latter point brings us back to state-society relations and the dynamics of mobilization.

In Chile, unions tried to mobilize when the privatization initially went forward, consistent with the expectation that unions would try to defend public utility jobs and associated benefits, as well as taking up water and sanitation as a broader public issue in tandem with other kinds of groups. Unions were initially unsuccessful in developing a broader alliance with other groups.

However, since then they have become involved in water politics once again, while a broader movement around the water commons has grown. In Argentina, unions went along with the privatization and then turned against it. Neighborhood associations and consumer groups have been the most vocal critics, but their mobilization has been issue-specific about expanding access or pollution, and has been more narrowly aimed at improving services as opposed to the commons. Looking forward, ongoing mobilization through institutional channels in addition to protest at times of crisis may be necessary to keep water and sanitation high on the policy agenda.

As the privatization paradigm declined, there were various modes of exiting the countries: in some cases, multinational companies sold their shares to local investors and transferred responsibility to a local private company, in others they left more abruptly amidst conflict. In some cases, though multinational private companies withdrew from the continent and the sector, local private companies took over managing water and sanitation utilities; their experience may also be a topic for further study. As many utilities have returned to the public sector, questions about how to strengthen public sector provision in light of experiences with the private sector remain open.

The water supply case in the post-authoritarian and post-debt-crisis Latin American context allows an examination of how shifting dynamics between state bureaucrats, civil society groups, and private industry unfold in countries with legacies of technocracy undergoing democratic transition, adding to our understanding of how privatization and responses to privatization work outside of the countries that form the bulk of sociological knowledge about struggles over social policy. The water supply case also leads us to take seriously a broad range of local social actors that may contest market ideology, as well as the conditions under which they do so.

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Appendix 1. A Note on Historical Research in the Field

Many comparative-historical projects do not involve long-term fieldwork. A number of comparative-historical classics offer a strong theoretical framework and rely primarily on secondary historical sources to analyze cases using that framework. Given the relative lack of extensive histories of water privatization in Argentina and Chile available in the US, however, I had little to go on. Most of the scholarly work on water had been written about the Bolivian case and many other sources analyzing what happened had been published by international organizations that indirectly ended up an object of my study, making their sources something that had to be interpreted much as one would approach a primary historical document, with a critical eye and awareness of the context in which it was produced.

Consequently, I went to the field to collect archival documents and secondary documents about these processes of privatization that were not as easily available in the United States. My focus on a fairly recent historical period also allowed me to obtain interviews with individuals who were involved in water privatization on various sides of the process, for example, both those who implemented privatization and those who mobilized against it. I also attended any relevant events I learned about and could get to—to listen and observe, and to better understand how these issues around the water supply were being discussed in different kinds of spaces in each country. This ability to be physically present, to enter the office of the former head of the waterworks service who had worked with Pinochet, to enter the office of a small NGO in Buenos Aires that had become one of the key voices trying to influence the national environmental agenda, to enter the compound of the Economic Commission for Latin America and the Caribbean (ECLAC) and speak with one of the analysts producing and advising many of the

publications on water policy in the region, to sit at a small round table in the building where the utility archives are housed, to stand in the middle of a windy traffic circle near the Noria bridge on the edge of Buenos Aires as neighborhood activists told stories of sewerage overflowing into their streets as we both had to blow our noses from being in the cold—even though these details are invisible on the pages of this analysis, all of these experiences indirectly informed my understanding of water politics in the places I went to and shaped my path through the many archives and spaces in which I sought to understand why water privatization came to Chile and Argentina, how it was implemented, and how it was received.

Appendix 2. Selected Images

ARGENTINA

Image 1. The painting "Construcción de desagües," by Benito Quinquela Martín, depicts the construction of the sewage system in Buenos Aires. It was donated by the artist in 1937 and hung in the central hall/principal staircase of the former Obras Sanitarias de la Nación, when it still occupied the building that today houses the Supreme Court of Argentina (Poder Judicial de la Nación) The painting was massive, 7 by 9 meters. In 2007, a year after the water utility returned to the public sector, the government signed an agreement for its restoration. (Image courtesy of the Museo del agua y de la historia sanitaria and Aguas y Saneamientos Argentinos, Buenos Aires, Argentina)

Image 2. Perón contemplating the expansion of waterworks for Buenos Aires, cover of the *Revista Nacional del Agua*, December 1946 (Courtesy of University Chicago Library)

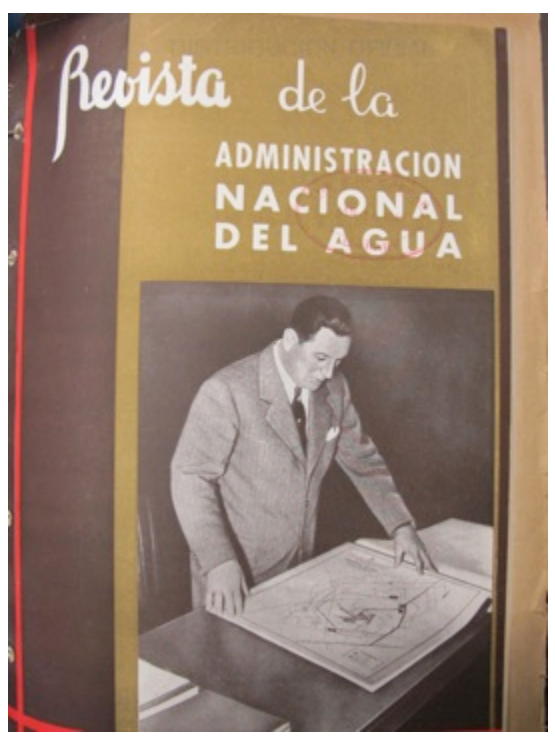

Image 3. Domingo Cavallo, "Un peso, un dólar"; image of Cavallo's policy of dollar and peso parity (Courtesy of Ohio State University Department of History)

Image 4. Man 1: Why do they say we have to raise the tariffs? Man 2: Duh, don’t you know what all the IMF technocrats that go to Argentina say? Man 1: What? Man 2: That everything’s really cheap there. Daniel Paz, *Página 12*, 1 February 2003. (Courtesy of National Library Newspaper Archive, Buenos Aires, Argentina)

Image 5. "Emergencia Sanitaria": Street demonstration in Greater Buenos Aires about water and sewerage (Courtesy of Foro Hídrico de Lomas de Zamora, Argentina)

Image 6. "No to the flooding; water works now!"A pamphlet demanding the expansion of the sewerage system. The pamphlet indicates that mobilization should be directed at the Ministry of Planning and links the extension of sewerage infrastructure to employment. (Courtesy of Foro Hídrico de Lomas de Zamora)

Image 7. Images of protests demanding the extension of the sewerage network in neighborhoods of Greater Buenos Aires lacking connections (Courtesy of Foro Hídrico de Lomas de Zamora)

Image 8. *Piqueteros* in Greater Buenos Aires, *Página 12*, 4 February 2003. The headline reads "In Search of Lost Work" ("En Busca del Trabajo Perdido") and the description refers to roadblocks by *piquetero* groups protesting about social policy coverage, subsidies, and tariff increases. (Courtesy of National Library Newspaper Archive, Buenos Aires, Argentina)

Image 9. "Universalization of services: Plan Water+Work and Sewers+Work" (AySA brochure)

Image 10. "Close to our users, close to the people." (AySA brochure)

CHILE

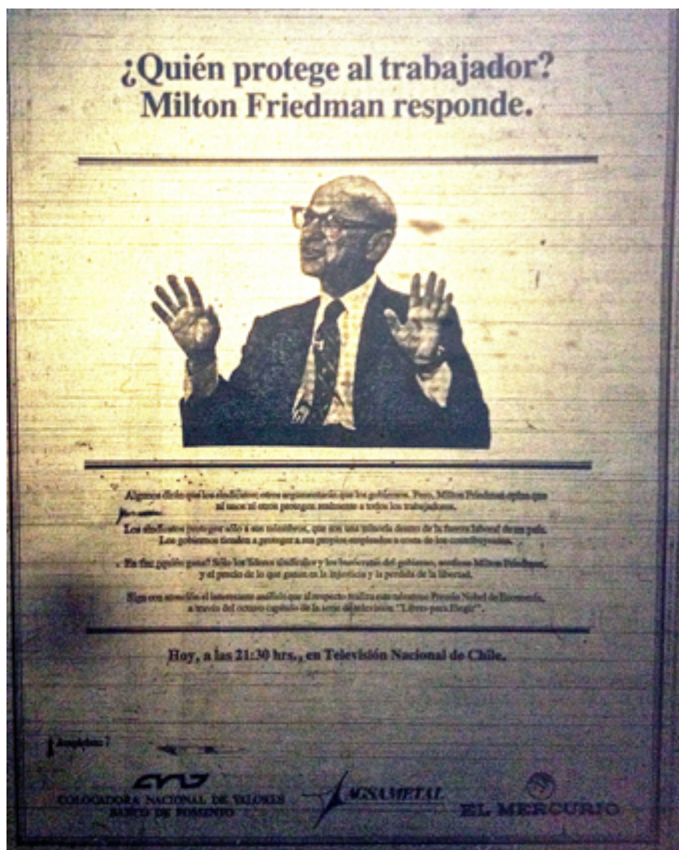

Image 11. Half-page ad in conservative daily *El Mercurio*, advertising that Milton Friedman will be making a TV appearance on national television on the issue of workers' rights. (Courtesy of the Hemeroteca de la Biblioteca Nacional, Santiago, Chile)

Image 12. Public sector phase. Photo documenting EMOS mascot out in the community, Santiago de Chile. From series of promotional photos of EMOS activities, such as workshops and school visits. (Courtesy of personal archive of Raquel Alfaro, former head of EMOS, Santiago de Chile)

Image 13. Photo documenting EMOS participation in school visits, Santiago de Chile (Courtesy of personal archive of Raquel Alfaro, former head of EMOS, Santiago de Chile)

Image 14. Photo documenting workshop with women about water and sanitation technology, Santiago de Chile (Courtesy of personal archive of Raquel Alfaro, former head of EMOS, Santiago de Chile)

Image 15. Public sector phase. Photo documenting EMOS employees outside of EMOS building, with Raquel Alfaro in the center. (Courtesy of personal archive of Raquel Alfaro, former head of EMOS, Santiago de Chile)

Image 16. Representatives of Suez and Agbar celebrating purchase of EMOS and creation of Aguas Andinas (*El Mercurio*) (Courtesy of the Hemeroteca de la Biblioteca Nacional, Santiago, Chile)

Image 17. Fourth National Forum on Water and Life, Santiago, Chile, 23 November 2012 (Photo by author)

Image 18. Coordinadora members meet at a session dedicated to water politics at the Social Forum in January 2013 (Photo by author)

Image 19. Activists march down the Alameda, the main thoroughfare in Santiago in January 2013. The sign reads: “For the right to water and life, let’s protect the glaciers! Down with the Water Code!” (Photo by author)

Image 20. Allende's ghost makes an appearance at one of the student protests. (Photo by author)

Image 21. Image of demonstrations for the defense of water resources in Chile, held in Santiago in April 2013. (Photo by author)