

Chapter 11

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DEFENDING PUBLIC WATER IN TIMES OF CRISIS: “POPULAR WATER GOVERNMENT” IN CARACAS, VENEZUELA

In Caracas, Venezuela, an ongoing water crisis exacerbates the impact of Covid-19. Despite the commitment of Caracas’s public water utility, Hidrocapital, to being a social-public model of provision, water service quality and reliability have been declining since 2014. The cause is a combination of cyclical droughts, poorly maintained and inadequate infrastructure, hyperinflation and declining government oil revenues. US sanctions have also undermined the water utility’s day-to-day operations. All of these factors have resulted in intermittent water services for both residents and healthcare facilities, making it difficult to respond to the pandemic. This chapter argues that resolving the current health crisis also requires addressing the water crisis. A sustainable solution must include immediate public investments in water and sanitation infrastructure as well as a renewed commitment to community participation and transparency to strengthen social-public management.

INTRODUCTION

In Venezuela’s capital, Caracas, a pre-existing water crisis has made coping with Covid-19 difficult. For two decades, Caracas’s public utility, Hidrocapital, has been experimenting with a unique model

of public participation, but it faces increasing challenges. Caracas's social-public model of service provision has been threatened by the deteriorating political and economic situation marked by a lack of transparency in decision-making, hyperinflation and US sanctions. Infrastructure deficiencies have made adequate hygiene a daily challenge for residents, increasing the risk of the virus's spread.

With fewer international travelers entering Venezuela than neighbouring countries – aside from an influx of returning Venezuelan migrants in the border regions – the oil giant seems to have been spared some of the high rates of Covid spread experienced by neighbouring countries like Brazil. The country has also adopted strict social distancing policies, and benefitted from international solidarity through agreements with strategic allies like China. However, after over five years of political and economic challenges, the country's response systems, like water and healthcare, were already vulnerable even before the virus hit.

This chapter offers preliminary considerations on the causes and implications of the water crisis in Caracas, and evaluates aspects of government, labour and community responses. It argues that resolving the Covid-19 health crisis also requires resolving the water crisis, which must include immediate public investments in water and sanitation infrastructure as well as a renewed commitment to public participation and transparency to strengthen social-public management. The analysis is based on participant observation and key informant interviews during field research in Caracas from August-December 2012 and April 2016-December 2017. Data from 2020 have been collected from secondary sources and personal communications with key informants.

CARACAS “SIN AGUA” IN 2020: A NEVER-ENDING STORY

Water challenges have long plagued Venezuela's capital, which is home to approximately seven million people and over a fifth of the country's population. Upon visiting Caracas in the 1950s, Latin

American literary hero Gabriel García Márquez wrote a short story entitled *Caracas Sin Agua* (“Caracas without water”), which could have been written today.

While Venezuela technically met the Millennium Development Goal for Water and Sanitation in 2001, reporting 92% improved water coverage, our 2012 research found that these high coverage rates obscured some issues with water service quality (McMillan et al. 2014). Since then, however, the situation has deteriorated significantly. Water service quality and reliability have declined, and water protests have again become a near-daily occurrence in Caracas, bringing back memories of the brutal neoliberal period of the 1990s. The social-public model of management has its roots in the social conflicts of that era in Caracas’s popular barrios (informal settlements, similar to Brazil’s *favelas*). During that time, due to severe water shortages and service interruptions, residents resorted to self-help water solutions, organized street blockades and even “kidnapped” Hidrocapital officials.

It was partly the deep social and economic dislocations of the 1990s, as well as public discontent with an increasingly disconnected political elite, that first brought about the military and political movements that swept political outsider and leftist Hugo Chávez to office (1999-2013). With input from civil society, the Chávez administration ushered in a new water management model that aimed to reverse trends of privatization and outsourcing, enhance community participation, and also prioritize investments in low-income areas. Together with a plethora of other social programs during this era, water reforms brought about real improvements in many people’s lives, particularly in the long-neglected *barrio* or informal settlements.

However, the Chavista leftist political project, which has carried on under elected successor Nicolás Maduro (2014-present) – also known as the “Bolivarian Process” – has deepened key vulnerabilities of the oil-dependent economy. During times of abundant oil revenues, public services planning prioritized getting resources to

communities to meet immediate needs, with little attention to long-term planning and maintenance.

The problems with this strategy have become visible following oil price declines in 2014, which precipitated a broader political and economic crisis (Hetland 2016, Ellner and Koerner 2016a,b). Defending public water in Venezuela means recognizing the gains of this process, but also coming to terms with its shortcomings.

The World Food Programme reported in 2019 that 25% of the Venezuelan population lacked sustainable access to water, while 4 out of 10 residents experienced daily water supply cuts (WFP 2019). Meanwhile, the Venezuelan Observatory for Social Conflict found that of 2,505 recorded protests in the first six months of 2020 – equivalent to 14 per day – over half were related to basic services; first electricity, followed by water and gas (Observatorio Venezolano de Conflictividad Social 2020). Caracas has not seen this rate of water protests since the turbulent 1990s.

Venezuela's already stressed healthcare system has also been affected by the water crisis. In a recent study of health facilities conducted in February and March, 2020, 31.3% of respondents reported not having access to clean water, with over 60% indicating that their access was limited (Médicos Unidos Venezuela, 2020). This prevents adequate washing protocols to reduce the risk of Covid-19 spread, including medical professionals' ability to shower before leaving hospitals (Torres et al 2020).

THE CARACAS WATER SYSTEM

It is difficult to know the scale of Caracas's water problems as the Venezuelan government stopped publishing official water coverage and quality statistics in 2014, reflecting a worrying decline in transparency. Yet, studies from international and domestic organizations paint a grim picture. In August 2020, the Venezuelan Observatory for Public Services, found that while 91.7% of the country's surveyed residents (and 94.6% of Caracas's residents) had piped wa-

ter services, only 13.6% received continuous (24/7) service (OVSPA 2020).

Water and sanitation services in Caracas are the responsibility of Hidrocapital, a regional subsidiary of the national water company HIDROVEN. Hidrocapital, a wholly public utility, is responsible for providing water to the Caracas Metropolitan Area, and neighbouring Vargas and Miranda states. Water policy and service regulation fall under the jurisdiction of the *Ministerio del Poder Popular Para Atención a Las Aguas* (Ministry of People's Power for Attention to Water), created in 2018 after being split away from the environment ministry. Some infrastructure construction and investment functions are also under municipal jurisdiction.

Providing water in Caracas is no easy task. The city is located in a valley, lacking sufficient nearby water sources for its population and economy. Water is pumped into the city from distant reservoirs through three separate water distribution systems referred to as Tuy I, Tuy II, and Tuy III. The Camatagua water reservoir that feeds Tuy III and serves the majority of the western hillside barrios is located at a distance of almost 100 km from the city. The aqueduct must then pump water from sea level to an altitude of approximately 2000 m. These geographical challenges are exacerbated by the establishment of many informal neighbourhoods, which possess deficient or makeshift internal networks.

Past research has identified Hidrocapital as an example of a “progressive” public utility given its commitment to worker empowerment, community participation through local *Mesas Técnicas de Agua* (Technical Water Committees, MTAs) and its attention to low-income and vulnerable areas: all features of the national government's stated commitment to *Gobierno Popular del Agua* (Popular Water Government) (McMillan et al. 2014, Spronk et al. 2012). This commitment does not just exist on paper. Residents of Caracas's barrios or low-income neighbourhoods frequently report that despite its many shortcomings, Hidrocapital has the most regular on-the-ground presence of all government institutions. According

to one water activist previously interviewed, “they are the only ones that come regularly! But they can’t do everything.”

Water management is highly centralized in Venezuela, despite Venezuelan water law indicating that jurisdiction for water provision should be a municipal responsibility (Asamblea Nacional de la República Bolivariana de Venezuela 2001, 2007). However, since 2016, HIDROVEN has been decentralizing some aspects of service provision by establishing *Salas de Gestión del Agua* (Community Water Management Offices), which remain in development. The *Salas* are pillars of a larger policy goal of transferring local water distribution systems to communities, including maintenance and repairs, the changing of water valves and potentially even the collection of user fees. The *Salas* are given a vehicle, computer and telephone so they can receive calls about water issues and organize the daily workplans of Hidrocapital maintenance crews assigned to their area.

The *Salas* are the latest part of a long-term effort to increase the role of communities in water service planning and delivery. In 2001, the national government institutionalized participatory planning in its public water utilities through the promotion of community relations offices in its utilities and community-led “technical water committees”. The MTAs are neighbourhood-level committees that work with Venezuela’s public water utilities to plan and execute local infrastructure projects and oversee service delivery. Before becoming national policy in 2001, the MTAs were successfully piloted by a progressive mayor in two Caracas communities as a response to severe water problems in the 1990s. The MTAs are in turn affiliated with an umbrella neighbourhood planning body, called the *Consejos Comunales* (Communal Councils), which includes other sub-committees dedicated to healthcare, electricity, telecommunications, recreation, food distribution and other areas.

In addition to neighbourhood-level MTAs, residents are invited to regular community-wide meetings of the *Consejo Comunitario del Agua* (Community Water Council, CCA), which brings together all of

the MTAs within a local water distribution system. In regular CCA meetings, residents meet with representatives from Hidrocapital, including “community promoters” assigned for each community. The promoters are key liaisons between the communities and the utility’s management and technical staff. The CCA is an opportunity to air grievances about the service, follow up on work plans and discuss other aspects of service provision.

In the context of Covid-19, some water committees (MTAs) are reportedly assisting with response measures like tanker deliveries. However, some public CCA meetings have been suspended indefinitely due to an inability to access public spaces for meetings, even with social distancing protocols in place. According to a water activist from a barrio in Caracas’s west where water meetings have been suspended, this hampers their ability to exert social control at a time when it is urgently needed (personal communication, August 23, 2020).

DROUGHT AND INFRASTRUCTURE DEFICITS

Given this commitment to service reform, how can we understand the current water deficiencies? There are a few proximate causes such as environmental factors related to drought, but also political decisions: rationing and infrastructure deficits. The latter have grown worse within the highly politicized environment of hyperinflation, irregular tendering procedures and US sanctions.

From 2014 to 2016, Venezuela suffered its worst drought in 47 years (Dutka 2016), which left the reserves at Caracas’s main drinking water reservoirs at dangerously low levels. It also famously disrupted electricity in the capital and other parts of the country due to the reliance on hydroelectricity produced at the Gurí dam. Again, in early 2020, as the Covid-19 pandemic hit the Caribbean nation, the capital experienced a dry spell (León 2020). However, the roots of the water problem go much deeper than the weather.

In response to drought conditions in 2015, Hidrocapital imple-

mented water rationing through the Caracas *Plan de Abastecimiento* (Water Supply Plan). Rationing has reduced its overall water production from 18-19,000 L/s to 13-14,000 L/s, with many of Caracas's 86 pumping stations operating at half capacity (Delasio, presentation in Hidrocapital, November 2017). However, even after the reservoirs recovered, the plan has remained in effect. Current and former Hidrocapital officials explain that the reduced level of operations has outlived the drought given leaky and malfunctioning pipes and breakdowns at pumping stations (interview with Hidrocapital community promoter, December 14, 2017; interview with former Hidrocapital management, December 21, 2017). These issues stem from a combination of difficulties accessing replacement parts and poor maintenance. Operating the pumps at half capacity also takes a toll on the systems as the equipment degrades more quickly when it's turned off and on.

The reduction in service levels means that since 2015, many communities who used to receive water continuously now receive water for only half of the week. Many popular barrios have always received intermittent service according to what's called an "internal cycle." The internal cycle is a community-level water rationing plan whereby the utility directs water to individual neighbourhoods according to a loosely predetermined schedule. Parts of the city with the longest internal cycles have been exempt from the rationing plan. For those on an internal cycle, periods without water can range from 7 to 15 days, or as long as every 1-2 months, so residents must prepare by storing water. The community water councils discussed above play an essential role in overseeing these water cycles. Residents help the utility by informing them if water has not arrived on time; the utility, in turn, conveys important information about the cycle in these meetings.

Infrastructural breakdown lengthens the already long cycles. Such instances have become more frequent due to shortages of materials and reduced utility budgets due to hyperinflation. Regular blackouts in Caracas further interrupt water services given the reli-

ance on electricity for pumping water. When service is intermittent it means that pipes are not pressurized, which increases the risk of water contamination (interview, former Hidrocapital manager, December 21, 2017). Blackouts further take a toll on the machinery when protections are not in place for water backflows that damage the pipes and pumps (Prodavinci 2018).

Some water experts suggest that the water shortages could have been avoided with additional investments in the maintenance of existing infrastructure, as well as additional measures to maintain water reservoirs and protect their watersheds. While data are unreliable given the politicized nature of water supply, available sources maintain that from 2002 to 2014, Venezuela's water sector suffered a US\$150 million per year deficit below the level needed to maintain service coverage (Bausson 2018, Brin Laverde and Guevera Rey 2017). Meanwhile, some water experts estimate that US\$400-600 million per year over the next two years are needed to bring Caracas's existing infrastructure back up to acceptable standards (CSIS 2019, Sequera and Carvajal 2020).

Infrastructure works designed to increase the capacity of Caracas's water system have also been delayed. In 2005, the government began the construction of Tuy IV, a fourth water system (including a dam, reservoir and aqueduct) that would have delivered 21,000 L/s of water to approximately two million inhabitants of Caracas, Valles del Tuy and Los Teques. During our research in 2012, Hidrocapital officials told us that once the system was completed, many *barrios* would receive water 24/7. While the megaproject's completion was promised for 2012, it has experienced several delays due to budget shortfalls and changes to the project design (Bausson 2018, Observatorio de Ecología Política de Venezuela 2018). Today, it remains largely stalled.

Tuy IV is not alone among Venezuelan infrastructure projects that have experienced delays, cost overruns and irregularities. Problems with project design and management play a role. Under Chávez, and subsequently Maduro, infrastructure investment agree-

ments were increasingly achieved through bilateral agreements with strategic partners like Brazil and China, rather than through competitive and transparent procurement processes (Ellner 2017). Supporters and critics alike allege that the Bolivarian government has brokered these agreements to sideline sectors of domestic capital that were believed to be complicit in anti-government activities (e.g. the illegal failed coup of 2002), to forge counter-hegemonic alliances as a counterweight to US presence in the region and to move the money as quickly as possible. However, decreased public oversight has also fostered corruption and rushed planning decisions, leading to white elephant infrastructure projects (Ellner 2017; López Maya 2018; development bank official in Caracas, personal communication, May 16, 2016).

Economic sanctions have further hampered day-to-day Hidrocapital operations. As of 2019, US sanctions have prohibited foreign companies from trading with Venezuelan state entities and have blocked the country's access to international financial markets. A number of Venezuelan assets abroad have also been blocked since 2018, including Venezuela's US-based oil subsidiary CITGO, valued at approximately US\$7 billion, as well as US\$1 billion worth of gold in the Bank of England (Dobson 2020a). Economic analyst Francisco Rodriguez has noted that access to these funds could have provided crucial support for the country's Covid response (Dobson 2020a). Meanwhile a \$5 billion loan appeal during the pandemic was rejected by the International Monetary Fund (IMF) allegedly due to uncertainty over the legitimacy of Maduro's presidency (Dobson 2020a).

In the water sector, sanctions have crippled the government's capacity to import necessary replacement parts to fix broken pumps and pipes due to a lack of foreign reserves. As explained in 2019 by then-vice president of Hidrocapital, Maria Flores, "With the blockade, we've had situations where we have the pumps and the motors and they are about to ship and then comes the all-powerful hand of the United States and they block the money in the bank or sanction

the company that is working with us, just for selling us this equipment and without seeing that they are affecting people's lives" (cited in Fox 2019). A lack of materials, equipment and vehicles causes further delays in the already long internal water cycles within barrios because water is redirected to different sectors manually through an elaborate system of valves. If Hidrocapital technicians cannot access vehicles to change the valves, it means that communities do not receive water on time. The communities in which service continues are also impacted negatively since leaky pipes cause flooding when water is kept in the sector too long.

WATER USERS, PRIVATE VENDORS AND POPULAR ENGINEERING

How are residents coping with this new reality? A national survey during the pandemic finds that at least 56.7% of respondents store water, 18.5% pay for water from private tankers, 12.0% collect water from other places, and 10.5% buy bottled water (OVSP 2020b).

While the water crisis has undoubtedly affected all *Caraqueños*, some residents are better able to pay or have higher water storage capacity to weather long water interruptions. For example, ethnographic field research in 2017 indicates that many of residents of Caracas's wealthy Altamira and Los Palos Grandes districts in the east also face intermittent water services (with water arriving a few days a week), but buildings and individual apartments often have large water tanks to store water. Other middle and upper-class residents reportedly have illegally built private wells on their properties (Smith 2018). In the *barrios*, some residents have rooftop storage tanks, while those who are accustomed to more regular service have never had to invest in storage and must now scramble to fill whatever container they can find.

In the absence of regular public piped water or modern storage facilities such as water tanks, residents in low-income sectors who must leave their homes to purchase water or collect it from streams and springs of questionable quality face the greatest health

risk. In addition to contamination concerns, these residents cannot follow public health recommendations to stay home to stop the virus's spread. Meanwhile, having to spend scarce resources on water from private suppliers is heavy burden for Venezuelans still suffering from a prolonged economic crisis. A new tax on bottled water has further driven up the costs of what is, for many, an essential item (Voces Por el Agua 2020).

Other reports highlight cases of “popular engineering” in low-income sectors, with residents digging shallow wells or adopting even more extreme measures. Sputnik correspondent Magda Gibelli (2020), reports that communities near Caracas's Cuota Mil highway have taken matters into their own hands after months without water during the pandemic. Neighbours improvised their own water system, making use of abandoned water-filled tunnels from a highway construction project in the foothills of the Waraira Repano mountain (commonly referred to as El Ávila). They built a pipe system that carries water to their community by gravity. Water arrives to a community tap connected to a long hose. Each family is assigned certain days and times to collect water from the tap, avoiding the need to wait for water trucks or buy water. While heroic, such artisanal solutions are also dangerous given concerns about the safety of the water supply, as well as risks to community safety in the construction process.

THE COVID-19 RESPONSE

In response to Covid-19, the utility, municipal governments and the national water ministry have adopted a multi-pronged approach. On March 22, 2020, the government announced a six-month moratorium on shutoffs for basic services due to non-payment to assist residents affected by Covid (*Infobae* 2020). Another key pillar of its emergency measures has been an enlarged fleet of water tanker trucks managed by the water utilities and municipalities. Each day a small army of tanker trucks takes to the Caracas streets, providing

water for those with the most irregular services, as well as essential facilities like healthcare centres, Covid testing sites and hotels with quarantined travelers.

The national government has imported over 1,000 new tanker trucks through agreements with China and Mexico, which exchange oil for food and other goods (*El Nacional* 2020, Martínez y Marianna Párraga 2020). In Caracas, both Hidrocapital and the municipality offer tanker deliveries. As of late August 2020, through its *Plan Agua Caracas*, the municipality is distributing at least a million litres of water per day with 23 regular tankers, 18 supertankers with a capacity of 35,000 L and 5 with 10,000 L (VTV 2020). Distribution is carried out in cooperation with local technical water committees to determine areas in need. Unlike their expensive private equivalents, public tanker deliveries are free. While tankers provide an important lifeline during the pandemic, some water experts suggest delivering water by tanker is economically inefficient and inadequate for meeting daily water needs (Sofia Garcia 2020). Moreover, during Covid, waiting in line for tanker deliveries can create an additional risk of spread for water users and workers.

Venezuelans with formal connections to water and sanitation have traditionally benefitted from low, subsidized rates for public services. Residents of certain Caracas neighbourhoods benefit from an additional tariff reduction under a “social tariff,” while *barrio* residents with highly deficient services are not charged at all. Water charges are volumetric, but based on an estimated water use since most Caracas households are not metered.

As part of a government commitment to affordable public services, tariffs were frozen from 2004 to 2009, and then reportedly again from 2011 to 2018 (official from the Hidrocapital Subgerencia Comercial Metropolitano, personal communication, November 2, 2017; Bausson, 2018), but since then have been increased in response to inflation. In May 2020, early in the pandemic, Hidrocapital reportedly further raised the tariffs. The increases have allegedly reached as high as 19,000% (*El Universal* 2020), with commercial

users affected more than residential ones (Venezuelan journalist, personal communication, August 23, 2020); however, it is difficult to find official information on the increase.

Some have critiqued the utility's decision to increase tariffs in the context of a pandemic and low service quality (*El Universal* 2020). However, for others, such measures are sorely needed. One study in 2018 found that Venezuela's water tariffs were below the rates of other large cities in the region by as much as 4,349-27,460% (Provinci 2018). As early as 2016-2017, water activists from the technical water committees were arguing for an increase in tariffs, with the hope that such reforms would strengthen the public service and reduce their reliance on more expensive private providers. Hidrocapital officials noted that in 2017 less than 5% of the utility budget came from user fees (official from the Hidrocapital Subgerencia Comercial Metropolitano, personal communication, November 2, 2017).

Defining an appropriate tariff structure is complicated, given the disconnect between Bolívar-based and dollar-based economies in Venezuela, as the country undergoes gradual (though unofficial) dollarization. While many utility expenses – like importing component parts – must be paid in dollars, official wages continue to be paid in bolívares. For years, the government subsidized imports using oil revenues, which allowed prices for goods and services and wages to remain artificially low. While this stifled domestic production, it maintained stability so long as oil reserves could support the subsidy system. Today, as food and other necessities are adjusting to “real” market prices and are increasingly sold in dollars, residents who earn in local currency struggle to make ends meet. This disconnect between earnings and the cost of living also makes it difficult for the utility to charge the types of water tariffs that might bring meaningful revenue to the utility.

A future path that would help to redistribute the wealth would be an overhaul of the tariff systems to provide a more significant cross-subsidy between wealthy and poor users, such as the tariff

structure in OSE (Uruguay) (Spronk 2010, Spronk et al. 2014).

To give an example to support the need for reform, *El Universal* (2020) reports that in May 2020, an apartment in Caracas's city centre experienced a monthly increase on its water bill from VES1,200 to VES40,000. As of August 24, 2020, the official exchange rate for the US dollar was VES307,000 – which would mean that VES40,000 is mere cents! However, if you are earning the minimum wage of VES400,000 (plus 400,000 in food credits), that is 10% of your monthly cash income on piped water. This expense may also need to be supplemented with bottled water given questionable water quality in some areas.

In terms of long-term responses to the crisis, the government has recently announced a new *Plan Nacional de Aguas* to address the combined threats of water deficiencies and Covid. This will hopefully bring renewed attention and much-needed investment to the sector. The latter will likely need to come from a variety of sources, including potentially progressive tax reform. Public and worker consultations for the plan were held in August 2020. While details of concrete measures remain scarce, Water Minister Evelyn Vásquez explains that the plan contains six axes, which include:

1. reinvigorating the technical water committees and the community water councils and mapping local solutions;
2. strengthening and preserving the sovereignty of the water system through repairs and stabilization of the systems;
3. strengthening the security of the water system in cooperation with the military and police;
4. education, innovation and technology to stimulate local production of component parts and the training of local water experts;
5. the transformation of the management model, including accelerating the transfer of services to communities and the creation of workers' production councils (see below);
6. water harvesting and production, including water conservation (Alvarez 2020).

PUBLIC WATER WORKERS RESPOND TO THE CRISIS

Hidrocapital workers are on the front lines during the Covid-19 pandemic and maintain a strong commitment to public service despite serious declines in working conditions and real wages for all public sector workers in Venezuela. Employees of HIDROVEN and its subsidiaries like Hidrocapital are unionized through the national *Federación de Sindicatos de las Empresas Hidrológicas de la República Bolivariana de Venezuela* (FESIEMHIDROVEN). During Covid-19, Hidrocapital workers are shielded by special labour protections the government has implemented during the pandemic. For example, job dismissals as a result of quarantine have been outlawed, and all public and private sector workers receive a special government bonus (Dobson 2020b). Masks are mandatory in Venezuela, and the national government has deployed the *Sistema Nacional de Gestión de Riesgo* (National Risk Management System, SNGR) to regularly disinfect public spaces, including the Hidrocapital offices and pumping stations. In addition, the teams clean other government offices, airports, bus and metro terminals, public squares, streets, markets and other high traffic areas (*Ciudad CCS / VTV* 2020).

Despite these protections, there are serious concerns about the deteriorating economic situation exacerbated by the pandemic. Like Venezuela's other public sector unions, the water union laments that their wages have not kept up with the challenges of an increasingly expensive and dollarizing economy. In a publicly available communiqué dated May 7, 2020, the water workers' union denounced a "grave deterioration" in the conditions of current and retired workers in the middle of the Covid-19 crisis. Their main grievance: that their base salaries and the special bonus did not cover their basic cost of living, meanwhile food baskets (a benefit guaranteed to workers) were not arriving (FEDESIEMHIDROVEN 2020).

Among other concerns were a lack of transport and equipment for workers, and other safety provisions. This has been an ongoing

issue in the resource-strapped nation amid revenue shortages and sanctions. During field research in 2016-2017, Hidrocapital workers were using public transit and borrowing community members' for vehicles to do much-needed repairs or change water valves since the utility's fleet was in disrepair due to shortages of vehicle parts, batteries and engine oil. Many workers expressed concern about personal security and liability given that community vehicles are uninsured.

Until recently, Hidrocapital outsourced many of its operations functions, including the management of its Caracas pumping stations, to private "cooperatives." Since 2014, the utility has taken over these functions, absorbing many of the original cooperatives' staff members. In theory, this move strengthens the public sector union and brings workers into the government benefit structure. However, in 2016-2017, workers also reported serious challenges with this transition. Many of the vehicles and other equipment belonged to the private provider, which repossessed them after the transition. Some days workers reported remaining stranded at the base, unable to carry out necessary repairs. As one Hidrocapital manager commented in 2017, "before, when the workers had their cooperatives, it was *mantequilla* ("easy-peasey"). Now, I have to take care of my workers for everything... boots, uniforms..." (meeting of the *Salas de Gestión del Agua*, Hidrocapital, December 1, 2017).

There were also concerns about workers' safety even before the pandemic hit. The death of a worker in 2018 raised serious concerns over safety protocols (Meneses 2018). Conducting work in the barrios can also present security risks of violence or theft. While visiting a pumping station in El Valle in 2017 (a western parish home to many barrios), for example, workers reported that the pumping station had been robbed of its copper components. Others have reported being threatened at gunpoint or having vehicles hijacked. Allegedly, in part due to the risks of violence and criminality, the government began piloting a training and recruitment program to hire local operators from the area under what they described as a

“community brigade.”

During the pandemic, workers have demanded an increased role in the governance of Venezuela’s public water utilities. While workers in Hidrocapital already have various opportunities for participation and *autoformación* (self-training), the national union has called for the creation of *Consejos Productivos de Trabajadores* (Workers’ Production Councils) in the operations sector of all utilities (FEDESIEMHIDROVEN 2020). According to Venezuelan law, Venezuelan public and private sector enterprises should have at least one council (Asamblea Nacional Constituyente 2018). Their role is to evaluate and oversee production, commercialization, and distribution of goods and services in the interests of “the people.” Some utilities like Hidrofalcón in the western Falcón state already have functional councils while others are under development.

CONCLUSION

At stake in the current moment is not only the health and well-being of residents, but also the future direction of Venezuela’s public services. Given residents’ high rate of reliance on private providers and self-help measures, HIDROVEN and Hidrocapital require a much-needed influx of cash to maintain the pumping stations and pipes, and restore abandoned infrastructure works. Crisis-driven austerity risks hollowing out the public utility and further reversing the gains of the Chávez era. Addressing the compounding social and economic crises exacerbated by Covid-19 will require the following:

Transparency and communications:

- A lack of transparency on water quality, quantity and other utility operations undermines the social-public nature of the utility. It can also breed distrust with the public utility in a context where there may be legitimate reasons for service delays or service challenges.
- Transparency in decision-making and investment plans will help boost confidence in the public service at a time when

trust in government services is low.

Infrastructure investment:

- Water experts highlight the need to invest in maintaining and upgrading existing infrastructure in the short term rather than building new infrastructure. In the long term, an investment plan should guide future decision-making. Public debate on such plans and on tariff reform and alternative financing mechanisms would strengthen the social-public character of the utility.

Labour protections:

- Hidrocapital workers are at the frontlines of a challenging situation and are calling for greater worker protections and greater voice in water utility governance.

Community participation:

- Community participation, with adequate precautions, is as essential as ever during the pandemic, given the need to oversee crisis responses.
- Public dialogue is needed on tariff reforms and alternative financing mechanisms, including plans for cross-subsidization.

Sanctions and international solidarity:

- Venezuela's water service and Covid-19 recovery has been undermined by foreign sanctions. In a spirit of solidarity, defenders of public services must show critical solidarity in advocating against punitive sanctions on the part of their home governments.

Given the quickly evolving situation, more research is needed on public water management in Venezuela, particularly in smaller cities and rural areas. The combined water, health and political crisis in Caracas illustrates the importance of well-managed and transparent public services for health, social equity and democracy. While this chapter paints a grim picture, it also illustrates that against all odds, struggles for a social-public model of public provision persist. In the words of one community water activist, "water is vital. And it

now more than ever it is going to depend on all of us, united.”

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