Chapter 1

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INTRODUCTION: WHY PUBLIC WATER MATTERS

Historically, pandemics have forced humans to break with the past and imagine their world anew. This one is no different. It is a portal, a gateway between one world and the next.
Arundhati Roy (2020)

This book is about how public water operators have responded to the Covid-19 pandemic in different parts of the world. It is largely a celebration of their remarkable ingenuity, hard work and public solidarity in extremely difficult conditions, but it is also a critical reflection on the internal and external challenges public water operators face, the mistakes they have made, and what can be done to improve things in the future.

This introductory chapter sets the stage with a review of why water matters during Covid-19, followed by a discussion of why *public* water matters, including an analysis of different types of 'public' water and how they differ from private water providers

during a pandemic. We then examine the dark clouds that Covid-19 has generated for public water operators (from financial crises to privatization pressures), followed by the silver linings that have been revealed: the positive ways in which public water operators have responded to the pandemic and how these ideas and practices might be carried forward into longer-term organizational, financial and philosophical changes. We close with a brief review of the genesis and methodologies of the research for this book and how we have arranged the chapters.

These are still early days, however, and this collection of essays is but a snapshot in time taken shortly after the outbreak of Covid-19 (with most data collection and writing taking place between May and August of 2020). A second wave of Covid-19 infections is affecting many parts of the world as we write (October 2020), and for many countries the first wave continues unabated. The challenges described in this book may become exponentially more difficult for public water operators. A mounting economic crisis is leading to budget cuts and more aggressive forms of cost recovery while rising expenses such as personal protective equipment (PPE) and enhanced cleaning protocols are creating financial and organizational challenges that threaten to undermine the progressive work of public water operators in the near future.

Covid-19 is therefore both a threat and an opportunity for improved public water, and it may cut both ways, sometimes in the same place. As a result, the chapters in this book should be read in the manner suggested by Arundhati Roy in the quote above: as a glimpse into the potential for public water services to act as portals to a better future – one in which water and sanitation services are available to everyone in safe, reliable, affordable and democratic ways, and advance public goods beyond their narrow utilitarian value. Doing this will also require a substantial break from the past.

Covid-19 is not the first pandemic to highlight the need for effective and equitable water services – and it will certainly will not

be the last – but it is a truly universal crisis, showcasing the centrality of water services to basic human well-being in every part of the world. Notably, it has also helped to reveal the ugly underbelly of poor water services in many parts of the North, possibly helping to build a more robust global coalition of voices for change. As Sultana and Loftus note in their review of the impacts of Covid-19 on the human rights to water in this volume: "Throughout the global North, rarely have individuals been so concerned that access to water still seems to rely on the ability to pay. Rarely have the rights to water and sanitation been discussed so widely, with growing anger over the closure of public toilets and growing concern over household water insecurity" (see also Meehan et al. 2020). The chapters on water cutoffs in the United States and water poverty in Spain in this volume provide further concrete evidence of the growing *global* disparities of water service provision.

Not all of the stories in this collection are positive, therefore, but they all illustrate the potential for constructive change (through growing demands for more democratic decision making, the development of more progressive tariff policies, and the sharing of knowledge among public water operators). Some stories are dramatic – with decisions on water services having life-and-death consequences for millions of people. Others are less sensational but no less important or remarkable in terms of how they illustrate the speed and effectiveness with which many public water operators have dealt with the pandemic. In this regard we encourage readers to review the full range of public water experiences in this collection to better understand the breadth of challenges, the widely differing capacities of water operators, and the varying outcomes of public water crises during Covid-19, all in an effort to accomplish the same basic feat: the provision of safe, reliable water services to everyone.

This diverse compilation of stories is intended to accomplish three goals. The first is to provide a robust cross-section of empirical and theoretical insights on how public water operators

from around the world are responding to the Covid-19 crisis. The second is to identify and critically examine what can be considered 'good' (as opposed to 'best') practices and how these might be transferable to different locations. And finally, we aim to highlight the needs and opportunities for a more progressive public water future over the longer term and what lessons from Covid-19 might be carried forward.

WHY WATER MATTERS

Of the handful of preventative measures deemed effective at slowing or preventing the spread of Covid-19, handwashing is one of the most important. The mechanical action of rubbing hands together in water can itself remove germs, but is most effective when combined with soap because its molecules disrupt SARS-CoV-2's outer lipid membrane, killing the microbe. Running water then flushes away the viral fragments (Schmidt 2020). Hand sanitizers with at least 60% alcohol content can be equally effective, but they tend to be more expensive, are not always available, and are not as effective if hands are dirty (Smith et al 2020, Sicket-Bennet et al. 2005). Washing hands is also important for warding off other illnesses such as salmonellosis, hepatitis and other influenzas, with co-morbidity being a strong indicator of the potential infection and severity of Covid-19 (Aly et al. 2020, Morley and Vellas 2020).

But handwashing is only possible if water is available. Nearly 2.1 billion people lack access to safe, readily available water at home, while millions more must walk long distances or rely on otherwise unreliable and intermittent water services outside of their homes (UNICEF and WHO 2017). Many government institutions also lack basic hygiene services. In 2016, 47% of schools around the world lacked adequate amenities for handwashing, as did 16% of healthcare facilities (UNICEF and WHO 2018, 11).

Water disconnections in many countries exacerbate the problem. In the United States (US) alone, 15 million Americans had

their water services interrupted due to an inability to pay in 2016 (Swain et al. 2020), and the crisis appears to be worsening, with one survey noting that "water bills could soon be unaffordable for more than one third of Americans" (Teodoro 2019, 2; see also the chapters on Baltimore, Pittsburgh and Flint in this volume). Leaky infrastructure, intermittent service delivery and other forms of irregularity all contribute to a massive global problem with access to water for basic handwashing.

Even where water is available, there is not always enough of it for proper handwashing practices. Because the Covid-19 virus is not transmitted by water, the amount of water used in handwashing is more important than its cleanliness (although contaminated water is a vector for other illnesses). Thus, "frequent handwashing with lower-quality water is preferable to infrequent handwashing in high-quality water" (Howard et al. 2020, 382). But as the number of people staying at home has increased during Covid-19 due to lockdown measures, it has been increasingly difficult to ensure that sufficient amounts are allocated to handwashing activities, especially when other pressing household water needs are taken into account.

Access to soap is another problem. UNICEF and WHO (2019) report that only 60% of the world's population has a location in their household where both soap and water are available that are either fixed (a sink) or mobile (jugs or basins). These figures drop to less than 50% in sub-Saharan Africa (Brauer et al. 2020, Jiwani and Antiporta 2020). Importantly, sewage is not a spreader of Covid-19, as feces do not appear to be a disease vector (although, once again, it is a vector for other serious illnesses, potentially contributing to co-morbidity). However, antibodies from the Covid-19 virus can be tracked in sanitation systems and may be an important tool in monitoring outbreaks of the disease (Farkas et al. 2020; see also the chapter on Québec in this volume). Water operators can therefore play an important role in issuing advanced warnings of site-specific occurrences of the illness.

WHY PUBLIC WATER MATTERS

Although private water companies have also been dealing with the Covid-19 crisis (more on this below), the focus of this book is on public water operators for two reasons. First, they make up the vast majority of the world's water service providers. Private water remains significant in parts of Europe (England at 100%, France at 67% and Spain at 63%), and private water provision is growing in some locations (notably China and Brazil), but for most countries in the world, water and sanitation remains predominantly public. In the US only 15% of water is delivered by private companies, while in Germany only 12% is private, and in Italy it is 11% (Arup 2015, 38). Low-income countries are overwhelmingly serviced by public water agencies, with private water companies showing little interest in serving these markets (WWC and OECD 2015). Nor does the private sector play a large role in capital investments in the water sector, "struggl[ing] to provide more than a tiny portion of the infrastructure investment in the world" (Hall 2015, 10; see also McDonald et al. 2020a).

Second, there are good reasons to argue that public water operators (can) do things differently than private water companies. As members of the NGO *France Eau Publique* argue in their chapter in this book: "Unlike a concession contract, which circumscribes investment within a temporal and spatial framework, the public management model provides the means to make decisions based on long-term consequences. Public operators are committed to defending and preserving water as a common good. Where water is privatized, local authorities must deal with private operators who refuse to go outside of their mandates as defined in their contract. Public operators, by contrast, feel that they have a genuine mission to serve the public good. Employees are at the heart of this movement, ready to commit their time and energy to guarantee service quality."

It is not our intent to 'prove' that public water operators have been better at responding to Covid-19 than their private counterparts. We have not conducted the comparable research on private company reactions to the crisis to allow us to do this. Nor do we claim to have a representative sampling of public water operators to allow for such a comparison. In fact, we have an intentionally biased selection of public water operators which were chosen because we hoped they could illustrate relatively positive examples of public water services in an effort to learn more about what they have done well (and not so well) in their efforts to address Covid-19. We acknowledge that there are poorly run public water services in the world that could have presented a very different picture, but that is not the purpose of this book.

Having said that, we fundamentally believe that public water services can be more democratic, more accountable and more transparent than private water services, largely because they are not driven by narrow profit objectives. They also have better potential for collaboration with other public service providers given their broad public good mandates, and they have longer-term time horizons with regard to investments in people, infrastructure and systems where they work. Three decades of case studies and meta studies on this topic from around the world have clearly demonstrated that private sector water operators tend to be more expensive, less accountable and less interested in long-term investments than their public sector counterparts (Hall et al. 2005, Castro 2008, Bakker 2010, Bel et al. 2010, Tan 2012). We believe that this has negatively affected their ability to manage Covid-19 in a democratic and equitable way, and therefore associate ourselves with the overall conclusions of a group of UN Special Rapporteurs who published an (unprecedented) op-ed in *The Guardian* newspaper in October 2020 arguing that "Covid-19 has exposed the catastrophic impact of privatizing vital services" such as water (Farha et al. 2020).

But this book is not about the impacts of privatization. The question we want to ask is what makes for a 'good' public water

operator. On this point our position is one of contingency, with no predetermined outcomes, and with results depending on a wide range of social, political, economic, cultural and geophysical factors (McDonald and Ruiters 2012). To complicate matters, no two places are ever the same, and no single public water operator will ever get everything exactly right. We are interested in the messy collage of indicators that make up an assessment of public water performance and we examine these markers in different locales in an effort to better document and understand how effective (or not) these actions have been in promoting equitable, sustainable and democratic water services during the Covid-19 crisis.

We also showcase the importance of non-state actors in 'public' water services. Co-production involving some combination of government, communities, NGOs and other actors has long been a reality in water service provision, particularly, but not only, in countries in the South (Ahlers et al. 2014). We have therefore included one chapter on the role of small-scale local firms filling gaps left by the state in rural Nigeria, and another exploring community-run water aqueducts in Colombia, a practice that is widespread in Latin America (Llano-Aria 2015).

Of equal importance is the fact that we are we highly critical of certain types of public water operators; namely those that are corporatized and commercialized. By corporatization we mean water service agencies that are owned and operated by the state (local or national) but which function at arm's length with separate legal and financial status (McDonald 2014). There are many different forms that corporatization can take but the rise of neoliberalism and new public management over the past 30 years has resulted in the widespread commercialization of stand-alone water utilities, with market-based operating principles dominating decision-making. The general result has been the creation of public companies that operate as though they were private firms in a competitive marketplace, with a focus on the financial bottom line in an effort to "encourage particular types of entrepreneurial,

competitive and commercial behaviour" (Gilbert 2013, 9).

This form of commercialized water provision has manifested itself most noticeably in the push for full cost recovery and harsh penalties for non-payment. The result has been a crisis of water cutoffs in many parts of the world, including in some of the locations in this volume (notably Flint, Medellín and Cape Town), with few public water operators today having entirely escaped the philosophical and institutional influences of utility-based cost recovery mandates and their associated disciplinary actions.

Nevertheless, neoliberal corporatization is *not* privatization, and pure market forces never fully apply to state-owned enterprises or 'natural monopolies' such as water and sanitation (Furlong et al. 2018). In this respect we highlight potential openings for more progressive change even in some of the more commercialized public water operators in this book, with Covid-19 helping to expose the contradictions and inequities of narrow cost recovery mandates and the shutoff practices that often accompany them. As such, some of the least positive examples from this collection may prove to be the most instructive in terms of what can and should be done to address the crisis of affordability and to advance a more sustainable and democratic public model in a post-Covid world.

THE FINANCIAL CRUNCH

Nevertheless, the immediate financial situation for public water operators is very dire. Most of the public water operators showcased in this book face serious financial shortfalls as a result of Covid-19, on top of what was already a grim fiscal situation in an era of austerity, making short-term progressive public water policies difficult and diminishing longer-term options for change.

This financial impact has been felt on two fronts. The first has been a major loss of revenue. Lower demand (particularly from industry) combined with a decrease in payments (due to growing poverty and job losses) has meant drastic falls in income. Many

public water operators have also been subsidizing consumption and reconnecting users to the network in an effort to help combat the spread of the virus (sometimes as a result of government legislation, but also due to internal decision-making), exacerbating financial losses. The second factor has been increased costs, such as PPE, organizing new work arrangements, scarce critical supplies, increased cleaning protocols, expanded IT services and digitalization, emergency service provision, overtime for personnel, developing new systems for consumer relations, and so on.

The result has been a crunch on daily cash flows and long-term capital budgets. There are no comprehensive global figures as of yet, but data collected in June 2020 by the International Benchmarking Network for Water and Sanitation Utilities found that collection rates had fallen by 40% in the utilities they monitor while costs had risen significantly as well (World Bank 2020a). Other figures indicate revenue decreases of as much as 70% in the first few weeks of the pandemic (World Bank 2020b). In the United States, financial losses to utilities are estimated to be US$13.9 billion and the economic impacts US$32.7 billion (Raftelis 2020); this in a country where infrastructure investment needs in the water sector are estimated at more than US$1 trillion over the next 20 years (Tiemann 2017, 9). Water operators in countries such as Burkina Faso and Colombia are in equally difficult situations, but with far less fiscal and monetary room for maneuver.

Although many water operators have been able to go into deficit to manage the Covid-19 crisis, it is not at all clear that they will be able to preserve the necessary funding to expand and improve water services when the pandemic is over. If past experience with waterborne health crises are anything to go by, emergency funding will dry up quickly in many countries, with public water operators falling back into a chronic state of financial crisis. As much as we might like to think that this particular pandemic will be the one to finally wake the world up to the need for adequate funding for the Sustainable Development Goal (SDG) targets in water and

sanitation – with global figures for SDG targets 6.1 and 6.2 alone estimated at US$150 billion per year (World Bank 2017, 52) – even the most well-meaning of governments and donors will find it difficult to find the money given all of the other costs associated with the fallout from Covid-19.

One response to this ongoing financial crisis may be a doubling down on commercialization. There is already evidence of this in some of the chapters in this book. In Colombia, for example, *Empresas Públicas de Medellín* (EPM) has introduced emergency measures to make water more affordable to the poor during the pandemic, but they have been very clear that these are temporary reprieves from market-oriented cost recovery policies, and have been keen to emphasize that they are not offering "free" water. In Uruguay, legislative and managerial reforms introduced during the pandemic by the new market-oriented ruling coalition have intensified the trend towards marketization of the national water utility, OSE.

The World Bank has also used the pandemic as an opportunity to reinforce its marketized view of water services, with the creation of a specialized program on financing for water operators affected by Covid-19. The program is primarily aimed at short-term crisis management but it "could become a medium-term financing facility for the water sector.…[B]uild[ing] on the experiences of previous financial crises" (World Bank 2020b, 5). The aim is to employ "blended finance models to assist creditworthy or near-creditworthy utilities to move away from purely concessional donor finance to more sustainable market financing within the context of the pandemic" (World Bank 2020b, 1). They also note that "there will likely be a need to consider new external borrowing in the context of ensuring macroeconomic and fiscal stability," and that these loans will require "performance contracts" with key performance indicators "assessing whether utility costs are at efficient levels" with the goal of "increase[ing] efficiency and charg[ing] cost-reflective tariffs" (World Bank 2020b, 2, 7, 8, 23). It is hard to

imagine a more classically neoliberal stance.

There is also the distinct possibility of increased privatization in the water sector as a result of Covid-19, with some high-profile multilateral agencies pushing for more private participation. UN-Habitat and UNICEF (2020, 6), for example, want to "promote public-private-partnerships with multinational companies for support in provision of soap and other hygiene materials to the most vulnerable populations in informal settlements." They would like to:

> ...engage and empower small private vendors providing WASH services in informal settlements to ensure service continuity and support provision of personal protective equipment where needed for safe delivery of services...in-clud[ing] grants, materials or any other forms of incentives that will boost the operations of the small private vendors in these areas (UN-Habitat and UNICEF 2020, 7).

For its part, the World Bank (2020b) is pushing for equity investments in water services by private companies.

Some governments also appear to be using the crisis as an opportunity to advance privatization, particularly in locales where there was already a push to do so, such as Brazil (Zislis 2020). In some cases, fiscal pressures alone are pushing authorities to consider privatization, such as with the city of Philadelphia in the US (Mohler 2020). In other cases, Covid-19 has emboldened states to retract on their promise to remunicipalize water (see the chapter on Jakarta, this volume).

Private water companies themselves also appear to be on the offensive, with some using Covid-19 as an opportunity for public relations. Thames Water, for example, has been keen to advertise its Trust Fund donation to support customers in financial difficulties (Thames Water 2020). Similarly, Suez (2020) has announced the following:

> As a measure of solidarity, the Chief Executive Officer and the Executive Committee members have decided to donate 25% of their salaries during the lockdown period....via the SUEZ Foundation to the Institut Pasteur and to UNICEF to finance research and provide support of healthcare workers during the crisis.

More importantly, private water companies appear to be bullish on future prospects in the water and sanitation market, with Covid-19 serving to prove the sector's growth and stability potential due to its inelastic demand. As Amit Horman, CEO of Miya, a private equity water company operating in Europe, Africa and the Caribbean, noted in an interview with *Smart Water* magazine in May 2020:

> We don't foresee a significant long-term impact on the industry. We believe water utilities are amongst the most resilient sectors to an epidemic and for any financial crisis that can evolve as a consequence of that. Water consumption is rigid by nature and we think the sector will actually become even more attractive to investors (Tempest 2020).

Covid-19 also appears to be contributing to a rash of mergers and acquisitions. Some analysts anticipate a "complete restructuring of the water industry" (Maceira 2020, 3), exemplified by one of the most dramatic potential takeovers of the past 50 years in the sector – an August 2020 bid by French water multinational Veolia for a major stake in rival company Suez, with the latter indicating that this was "the first step in a planned takeover" (Keohane 2020). Ironically, then, Covid-19 may offer private water companies a new lease on life as governments grapple with growing deficits and as multilateral organizations such as the World Bank and certain UN agencies continue to promote private sector participation as a key solution to water and sanitation provision.

Is this "disaster capitalism" at work in the water sector, in which private business and their state backers aggressively push to (re)normalize neoliberal ideas and grab at opportunities to accumulate in the wake of a crisis (Klein 2007, Hashvardhan 2020, Vilenica et al. 2020, Zizek 2020)? There are certainly signs of it, but it is not a foregone conclusion, with progressive governments, unions, NGOs, community organizations and others continuing to fight against privatization while at the same time pushing for more progressive forms of public water services.

SILVER LININGS

Ultimately, this book intends to provide a 'good news' story, with signs that Covid-19 has demonstrated both the reality and the potential for public water operators to deal effectively and fairly with the pandemic in the short term, while at the same time opening up possibilities for improved democratization and equity-oriented services in the future. Some of the case studies presented here are more positive than others, but all illustrate the potential for public water to be more democratic, more accountable and more equitable. Some of the lessons learned may not transfer easily between locations given the unique circumstances that most public water operators find themselves in, but the very act of peer-to-peer learning and knowledge sharing documented in this book is an illustration of the potential for public water operators to advance a more collective form of public water provision in the future (see in particular the chapters written by representatives of Aqua Publica Europea and the Global Water Operators' Partnership Alliance).

Table 1.1 provides a summary of 'good practices' captured in these case studies. No single public water operator demonstrated all of them, and some did a better job than others. There are also instances where positive practices (such as a moratoria on cutoffs) were cancelled out by negative ones (such as a failure to provide adequate quantities of water), but the case studies provide con-

crete evidence not only of what is possible on the part of public water operators but what is actually taking place, often in extremely difficult circumstances.

Table 1.1
Examples of progressive actions taken by public water operators

Objectives	Actions
Making water services affordable	• Payment deferrals • Reduced rates • Free allocations of water services • Careful targeting of subsidies to those most in need
Keeping people connected to services	• Moratoria on cutoffs • Rapid reconnections from prior cutoffs • Rapid repair of breakdowns/ interruptions • Ensuring 24/7 services
Closer/safer access points	• Installing home/yard taps • Installing community taps • Providing emergency water tankers
New/enhanced online services	• Non-contact payment options • Remote technical support for consumers
Emergency services to vulnerable groups (e.g. refugees, informal settlements)	• Wash stations • Water tankers • Drinking fountains • Cleaning services
Public education	• Importance/methods of handwashing • Easing anxiety by assuring people that water services are safe, reliable and affordable
Supporting staff	• PPE provision • Extra training • Remote work options • Childcare support • Testing for virus

Table 1.1
Examples of progressive actions taken by public water operators

Staff commitment	• Frontline workers putting themselves at risk • Managers working to develop new systems • Unpaid overtime
Expanding/developing democratic processes	• Listening to different voices (communities, workers) • Being more transparent in decision-making • Being more accountable for decisions made
Innovation	• Development of new work and IT systems
Networks and solidarity	• Peer-to-peer knowledge exchanges on a not-for-profit basis (within the same sector, across sectors, national, international)

Most of the public water operators in this book have done everything they can to keep water flowing and to extend emergency services to areas and households without regular provision. Many frontline staff and managers have been working long periods of overtime, often without extra compensation, and frequently putting their own health at risk (despite the best efforts of most water operators to provide adequate PPE), and with very little in the way of acknowledgement or appreciation by the media or the public at large.

Some water operators were able to introduce new democratic decision-making processes as well as user-friendly payment systems and more accessible consumer services. Many developed public education campaigns around effective handwashing, assuring residents as to the reliability and security of their water and sanitation systems, helping to alleviate anxiety. Most importantly, public water operators have been able to develop and implement these emergency actions quickly and competently, often redesign-

ing plans as they went and, in some cases, developing emergency protocols from scratch. It might not be rocket science in terms of the technologies involved, but these public water operators have navigated an enormously complex terrain of social, political and economic dynamics in the midst of a pandemic at a time when most of the workforce was not able to meet face-to-face.

These positive performances by public water operators during Covid-19 may also help to curtail the aforementioned pressures of privatization. It could even contribute to an acceleration of demands for remunicipalization. Prior to Covid-19 there was already a growing trend towards bringing water services back under public ownership and management, with at least 311 cases of water service remunicipalization over the past 20 years in more than 40 countries (Kishimoto et al. 2020). Hundreds more municipalities will be making decisions about whether or not to renew their private sector contracts in the coming decade, with some having already decided to opt out early even when it incurs a fine (Umler and Gerlak 2019). So too might the strong performance of recently remunicipalized water operators during Covid-19 help to promote this option, as illustrated by the cases of Paris and Terrassa in this volume.

Negative experiences with privatization during Covid-19 could further accelerate demands for remunicipalization. Indeed, the initial waves of water municipalization in the late 19th and early 20th century were largely a result of health epidemics caused by fragmented private water service delivery. Sanitary reformers in Victorian-era England, for example, used cholera outbreaks to expose the gross inadequacies of a *laissez faire* approach to the problem, which had allowed nine companies in the city of London to partition the water supply among themselves in what became "a nine-headed monopoly" without central coordination (Leopold and McDonald 2012). No less an authority than John Stuart Mill took up the cause, criticizing the byzantine inefficiencies of balkanized private supply well before the establishment of a large-

scale monopoly supplier. In 1851 he thought it obvious that great savings in labour "would be obtained if London were supplied by a single gas or water company instead of the existing plurality... Were there only one establishment, it could make lower charges, consistently with obtaining the rate of profit now realized" (Mill 1872, 88-89). It was an error, he argued, to believe that competition among utility companies actually kept prices down. Similar developments unfolded in New York City, which "took over drinking water services from the Manhattan Company, the predecessor of JPMorgan Chase, after an outbreak of cholera killed 3,500 people and a devastating fire caused extensive property damage" (FFW 2012, 12-13).

Nor is it just water privatization that is being questioned during Covid-19. As the op-ed by the UN Special Rapporteurs makes clear, critics are increasingly blaming privatization for a wide range of problems associated with the pandemic, in services ranging from housing to healthcare to education (Farha et al. 2020). Their central argument is that it is extremely difficult (if not impossible) to manage a holistic public health crisis with a splintered for-profit services network. This awareness, combined with a growing recognition of the highly racialized and gendered outcomes of Covid-19 (see Spronk, this volume), may help to strengthen the ties between the anti-privatization movement and broader societal concerns around equity and discrimination in essential services, helping to build a more robust set of demands around a revised pro-public future.

Critical to this rebuilding of public services will be an attempt to integrate more democratic forms of public finance. Here we can briefly mention the potential for public banks in particular to assist with gaps in funding for water and sanitation. There are more than 900 public banks around the world (excluding central and multilateral banks), which collectively hold more than US$48 trillion in assets and account for about 17% of global banking resources (McDonald et al. 2020a). Some – like the Dutch Neder-

landse Waterschapsbank (NWB) and the German Kreditanstalt für Wiederaufbau (KfW) – have been lending to public water operators at low rates and providing expert public sector advice for decades. Others are relatively new, but the potential for expanding these relationships and building cross-sectoral trust and expertise is considerable. Covid-19 may help to create awareness and opportunities for such new and innovative forms of public-public partnerships [for more on this topic see this book's companion volume, *Public Banks and Covid-19* (McDonald et al. 2020b)].

STRUCTURE OF THIS BOOK

As noted earlier, this is a selective sampling of what we had hoped would be a relatively positive set of case studies of public water operators responding to Covid-19. In the end, it was neither as systematic nor as upbeat as we had hoped, but it does offer an impressive glimpse into a remarkable moment in time. With contributions from academics, activists, practitioners, unionists, NGOs, community members and water service provider staff based in more than 20 countries, *Public Water and Covid-19* provides a global perspective on a global phenomenon.

When we initially reached out to potential contributors in April 2020, shortly after the declaration of a global pandemic by the World Health Organization in March, it was not clear who would be able to participate and what kind of information they would be able to collect. We provided authors with a standardized list of questions to investigate in their locale – namely addressing: measures taken to ensure access to safe water and sanitation services, employee health and safety, the role that unions play in decision-making, communications and community engagement, collaboration with other public services in their jurisdiction, collaboration with public water operators in other jurisdictions, access to finance for emergency measures, levels of preparedness for emergencies, and the impact of Covid-19 on longer-term planning. However, the con-

stantly shifting nature of the crisis, combined with very different personal and geographical contexts, made it difficult to preserve the kind of consistency we had originally intended.

But it is perhaps the eclectic nature of this book that is its greatest strength, illustrating both a universality of water service experiences as well as its diverse realities. So too are the writing styles different. Some are lengthy and theoretical, while others are brief and practical. Collectively, however, they offer a set of insights that must be fully sampled to appreciate their overall flavour. In this respect we encourage readers to review a broad sampling of chapters, from different locations and different perspectives, and have intentionally placed the essays in random order to promote this.

This is also a 'rapid response' project, which means that the authors and the editors were working under very tight timelines to release the findings, as were the translators, copyeditors and graphic designers. We therefore ask our diligent readers to forgive us any minor formatting, citation or typographical errors.

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