

1 Introduction

Public banks and public water services in the Global South

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Introduction

The fact that hundreds of millions of people around the world still lack access to safe, reliable and affordable water and sanitation is a tragic failure of global governance. Although the situation has “slightly improved” since 2000 (WHO/UNICEF 2019), only 45 per cent of countries are on track to achieve their Sustainable Development Goal (SDG) targets for drinking water, and less than a quarter will meet their sanitation targets (GLAAS 2022, xii). Progress towards SDG 6 “is alarmingly off track,” with the achievement of universal access by 2030 requiring a six-fold “increase in action” on drinking water and a five-fold increase for sanitation (United Nations 2023, x-xi). The poorest regions of the world are furthest behind.

And yet, universal access to safe and affordable water and sanitation services (WSS) is one of the most achievable global challenges we face. The technologies are relatively simple and can be managed in ways that are appropriate to the geographies, cultures and institutions of different locations, with massive health, economic and environmental benefits. Unlike deep-seated tensions around social and technological changes to other essential services—such as energy and education—the principle of improved WSS arguably enjoys universal support.

So what stands in the way? A rash of intractable political factors are partly to blame, including weak legislation, rent-seeking and cross-border conflicts over (shrinking) clean water supplies (Tan 2015; Longo et al. 2022; Steyn 2022). But one of the biggest challenges is arguably that of finance. Capital expenditures required to reach SDG targets 6.1 and 6.2 alone are estimated at US\$116–\$229 billion per year (United Nations 2023; Joseph et al. 2024). Meeting other SDG 6 targets such as reducing water pollution, implementing integrated water resources management and protecting water-related ecosystems will cost considerably more, with total global WSS infrastructure development needs estimated at US\$6.7 trillion by 2030 and US\$22.6 trillion by 2050 (Ajami et al. 2018, 5).

There are also huge investments required to train skilled personnel. According to UN-Water, less than a third of the countries it monitors have

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the human resources needed to carry out key functions for the delivery of WSSs, and less than a fifth have adequate training and education mechanisms in place for the sector (GLAAS 2022, 50–1). Improvements to other operating activities—such as better public engagement—will add further costs to advancing the SDG 6 agenda.

The most pressing needs are in the Global South, but high-income countries are also in serious deficit situations (Hutton & Varughese 2016). The USA, for example, requires an estimated US\$1 trillion in WSS investment over the next 20 years (Tiemann 2017, 9).

The spending deficits are enormous, with over 75 per cent of countries surveyed by UN-Water reporting insufficient funding to implement WSS plans and strategies (GLAAS 2022, xiii). Less than 15 per cent of these countries have sufficient financing to implement their national SDG targets, suggesting a “need for a radical increase in global financing of water and sanitation investments” (Pickbourn et al. 2022, 1–2), in the range of “2–4 times larger than current practice” (Alaerts 2019, 821). Cost estimates vary widely based on the types of technologies employed—with ongoing debates about ‘appropriate’ forms of equipment (Swyngedouw 2004)—but even the most modest proposals will require enormous amounts of financing.

Where might this money come from? In this introductory chapter, we briefly examine a wide range of possible sources—public and private—highlighting key trends over the past 30 years. We emphasize the hugely disappointing experience with private finance. Despite decades of rhetorical support from multilateral institutions such as the World Bank and the OECD, private finance has been almost non-existent in the water sector in the Global South, with no amount of de-risking seemingly able to move the needle.

But public funding has failed in many ways as well. Although governments at various levels continue to pay for the lion’s share of WSS investments, the spending gaps are enormous and growing, with new public investment vehicles such as sovereign wealth funds and public pension funds having made little difference in this regard despite their vast pools of resources.

However, there is one set of public financial institutions that has been largely ignored in the debate about financing WSS: public banks. Broadly defined in this book as financial institutions majority owned by the state or another public entity, public banks have been involved in financing WSS for decades (Marois 2021; McDonald et al. 2021; Fonseca et al. 2021; Marois & McDonald 2023). There has also been a resurgence of interest in public banks, and a growth in their size, as more and more governments see their potential in tackling some of the world’s biggest challenges (Clifton et al. 2021; Mertens et al. 2021; Marodon 2022; Gungen 2023; Case-Ruchala 2024). Public banks have begun to assert their own influence in these financing debates, most notably with the creation of the Finance in Common (FiC) network in 2020, which sees itself as “the global movement for all public development banks,” managing more than US\$23 trillion in assets and US\$2.5 trillion in annual investments (FiC 2023).

It is not our intent in this book to argue that public banks will resolve the water and sanitation financing crisis. Not all of SDG 6 funding needs can or should be subject to repayable sources of financing—public or otherwise. This serves to underscore the fact that resolving the global WSS crisis will require massive amounts of additional injections of capital from all levels of government.

Nor are there any guarantees that public banks will lend to public water services, let alone in ways that are affordable, sustainable, equitable and transparent. Public banks, like all public institutions, are diverse and complicated entities, with no predetermined trajectory or purpose. Public banks are neither inherently good nor bad, with significant differences within and across jurisdictions; public banks are only ever as good as societies command them to be (Marois 2021). This suggests that making any simple assertion of an *inherent* purpose to play a meaningful pro-public role in financing WSS is misleading. What public banks do, why and for whom is contested within and across jurisdictions. In short, there are no simple answers when it comes to the possible role of public banks in financing WSS. This suggests greater scope for more case study research and empirical knowledge in the area.

Nevertheless, public banks offer a unique and potentially transformative vehicle for addressing short- and long-term financial challenges in WSS in the Global South. While identifying cautionary elements, our aim in this book is to focus on promising examples, highlighting the strengths (and weaknesses) of different models via detailed case studies, and suggesting ways in which these public banking institutions might be improved.

In doing so, we hope to contribute to a growing body of systematic empirical research on public banks, much of which has been rather patchy to date (Xu et al. 2021, 270). We build on previous case study research examining the links between public banks and public water in Europe (Marois & McDonald 2023) using the insights gained from countries in the Global South to expand on our theoretical and practical understandings of how public banks can finance WSS.

Given the dearth of research on the topic, we did not set out to test a particular set of hypotheses. With so little known about public bank involvement in the water sector in Asia, Africa, the Middle East and Latin America—and with such diverse political, economic and institutional norms within and across these regions—it was neither possible nor desirable to anticipate outcomes. Our goal was simply to collect reliable, comparative data and insights that would allow us to describe what is happening on the ground and assess its implications for future public bank involvement in WSS.

The results of the research are as mixed as the countries and institutions investigated, but the studies point to one common outcome: there is enormous potential (and considerable appetite) for progressive forms of public bank financing of public water services. Although the examples range from the simple and inspiring to the complex and problematic, the studies illustrate that public banks can make a significant contribution to the sustainability

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and viability of public water systems in the Global South, with considerable scope for expansion and improvement. There are problematic aspects in each case studied, and not all positive lessons can be reproduced elsewhere. But given that public banks “are here to stay” (Ndikumana et al. 2021, 7) and are likely to play an increasingly important role in WSS financing around the world, a better understanding of public banks’ potential is critically important.

We begin this Introduction with a review of the different financing sources that have historically been employed in WSS in the Global South. Moving from the local to the global, we assess a range of public and private options to illustrate where funding for WSS has (and has not) come from in the past. This review is followed by a discussion of what constitutes a public bank and where we situate ourselves theoretically in this debate. The chapter concludes with a description of the research methods employed and a summary of key findings.

Sources of finance for water and sanitation in the Global South

Water and sanitation is a diverse sector with multiple agencies working across different jurisdictions, making a comparison of financing models across countries difficult (Joseph et al. 2020). Nevertheless, most funding comes from a handful of sources, particularly in the Global South. The following sections explore the most significant of these.

Water operators and cost recovery

For most water and sanitation operators “households are the largest source of funding” (GLAAS 2022, xiii), typically through “tariff payments by users and public finance derived from taxation” (Bartram et al. 2018, 3; see also GLAAS 2017). But these cost recovery efforts are seldom sufficient. For most water operators tariffs do not even cover operating and maintenance (O&M) costs, and there are no known examples anywhere in the world where tariffs cover all capital expenditures (GLAAS 2022, xiii).

This funding shortfall is endemic in low-income countries and rural areas, with only 15 per cent of such water utilities matching operational expenditures or generating a cash surplus via cost recovery (World Bank & UNICEF 2017, 14). A survey of 30 utilities in Africa found that only 36 per cent met their full O&M costs and only 9 per cent met O&M costs plus a portion of their capital costs (UNICEF 2019, 25). These revenue shortfalls are particularly acute in sanitation, where the challenges of applying and collecting fees is more problematic, resulting in deep infrastructure spending shortfalls and a greater reliance on higher tiers of government spending (Hall & Lobina 2008; Daudey 2018).

Efforts to boost cost recovery in the Global South have met with little success over the past few decades, despite considerable efforts by international

financial institutions. The realities of poverty have meant that low-income households struggle to pay for basic levels of water and sanitation, with tariff structures in many parts of the world disproportionately burdening the poor (Rusca & Schwartz 2018). At the same time, the collection of fees is often complicated by clientelist relationships, the politicization of water supply, and powerful clients (including other government agencies and institutions) being unwilling to pay.

Even if revenues could be increased (in a progressive way), it is foolhardy to rely on full cost recovery in a single sector, with knock-on effects from WSS affecting other key areas such as health, education and energy, potentially undermining the viability of these services in an effort to finance water and sanitation. A reliance on cost recovery also exposes water operators to the vulnerabilities of economic cycles and exceptional events, underscored by the impact of COVID-19, which contributed to a liquidity crisis for many public water operators due to falling revenues and increased costs, highlighting the need for a broad-based financing model (McDonald et al. 2020; Marois 2024).

The widespread use of corporatized forms of water utilities exacerbates these cost recovery tensions. Governments around the world have increasingly turned to the use of financially ringfenced public corporations to deliver WSS, contributing to the creation of commercialized public sector cultures and ideologies, with public utilities being run increasingly on market-oriented operating principles (Brownlee et al. 2018; Andrews et al. 2022). Not all corporatizations have been carried out with commercialization in mind (McDonald 2016), but by their very nature corporatized agencies are compartmentalized silos, making it difficult to coordinate management and finance across departments, potentially undermining synergistic planning, resource use and economies of scale (Furlong 2015; Libey et al. 2020).

Local governments

Most local governments also lack the necessary resources to fully fund WSS, particularly in the Global South. The vast majority of towns and cities in Asia, Africa and Latin America have low (or no) municipal tax base upon which to draw, while downloading of responsibilities without adequate transfer of revenues, and rapid urbanization over the past few decades, have made it even more difficult to finance municipal infrastructural challenges on their own.

Options for raising external finance are also constrained, limited by already existing debt loads, weak (or no) credit ratings, and a lack of capacity to manage the funds necessary to address WSS spending. Municipal bonds—which offer a potentially affordable and accessible market-based financing source for WSS (AMWA & NACWA 2016)—are notably lacking and/or inappropriate in most countries in the Global South. They tend to be restricted by laws that impede issuance at local levels, by perceived risk on the

part of investors, by a lack of economies of scale, and by political problems associated with pooling risks and costs between municipalities (Bagchi & Kundu 2003; Pearce-Oroz 2006). There is potential for municipal bonds to play a role in financing WSS, but it will take time to develop these bond markets. This means bonds are unlikely to assist smaller and rural municipalities for the foreseeable future, and affordability could be a real concern (Peterson 2002; Mantso & Blaauw 2009; Nallathiga 2015; Singh & Dhanda 2021). Market-based bond financing also runs the risk of financializing WSS funding (that is, making WSS a profit-seeking investment vehicle), a topic we return to below.

National governments

For many water operators in the Global South, funding for WSS comes from national governments, due in part to the highly centralized and politicized nature of water services (Herrera & Post 2014; Carlitz 2017). But once again public monies are insufficient.

In some cases, it is a lack of political will. Water and sanitation is relatively easy to ignore when it comes to low-income households with little collective bargaining power, particularly when infrastructure is buried underground and lacking the eye-grabbing attention of other infrastructure investments such as roads, airports and electricity. Corruption and rent-seeking are also concerns, with WSS spending often used to garner political support or punish political opponents, further entrenching political power with central governments (Roll 2014; Colon & Guérin-Schneider 2015).

Even if the political will does exist—with many national governments claiming to prioritize water and sanitation in their official development plans—few countries have the resources required to meet their SDG 6 targets. Combined with the structural features of a global economy that have left many Asian and Latin America countries—and most African countries—heavily indebted and unable to generate sustainable economic growth, the likelihood of dramatic increases in national-level spending on WSS is extremely low (Ayadi & Ayadi 2008, Ndung'u et al. 2021).

This is not to absolve national governments of the moral, economic, health and environmental necessities of investing more money in WSS. Public spending on WSS represents only 1.2 per cent of national budgets globally (compared to 5 per cent in energy), and even these meagre budgets often go underspent, with an annual “budget execution rate” of only 72 per cent on average (60 per cent in the case of Tanzania in recent years) (Joseph et al. 2024, xviii, xxi; Kwezi 2021). Public spending on WSS also tends to benefit wealthier households and urban areas (Bakker et al. 2008).

It is therefore unrealistic to expect the majority of national governments in the Global South to cover the costs of meeting SDG 6 on their own. A significant portion of WSS funding will need to come from other sources, such as grants, aid and concessional finance from international donors.

Multilateral development banks

For many low- and middle-income countries, multilateral development banks (MDBs), such as the World Bank, the Asian Development Bank and the African Development Bank, are critical players in financing WSS. They accounted for about 15 per cent of total investments in the sector, providing over US\$15 billion for water and sanitation infrastructure investments, between 2010 and 2020 (Heidler et al. 2023, 2). And because of their simultaneous role as “knowledge banks,” MDBs also act as information brokers and gatekeepers, shaping the institutional and financial nature of water supply and sanitation (Kramarz & Momani 2013; Engen & Prizzon 2018).

Despite this oversized role for donors and multilateral banks, WSS forms only a small portion of official development assistance (ODA), with less than 5 per cent of ODA allocated to the sector over the 2016–20 period on average (UNESCO 2023, 164; Joseph et al. 2024, xix). Even these low figures are shrinking. ODA commitments to WSS declined by about 20 per cent over the 2012–15 period (WHO & UNICEF 2019), and a further 12 per cent from 2015 to 2021 (United Nations 2023, xi), while the gap between ODA commitments and actual disbursements to the WSS sector grew from US\$100 million in 2016 to over US\$2.6 billion in 2019 (Pickbourn et al. 2022). These gaps are geographically uneven as well. In Sub-Saharan Africa—the region most desperately in need of WSS investments—the proportion of aid to the sector dropped from 32 per cent to 23 per cent, while in Central and Southern Asia it increased from 12 per cent to 20 per cent (GLAAS 2022, xiii).

Private sector

Since the early 1990s, there have been widespread calls, notably from the World Bank and the OECD, for greater private sector finance investments in water and sanitation infrastructure (Briscoe & Garn 1995; Goksu et al. 2017; OECD 2019; Joseph et al. 2024). This pro-private preference is now hegemonic amongst many development agencies as well as mainstream think tanks and NGOs. Despite the much-vaunted “new” way of thinking proposed by the high-level Global Commission on the Economics of Water, the report simply resuscitates tired notions of more public–private partnerships to resolve the water crisis (GCEW 2023). Even the World Wildlife Fund insists that “the only way to achieve the required level of investment in the water sector is by significantly leveraging the private sector” (WWF et al. 2018, 8).

But after three decades of pushing for private investment in WSS, it has not materialized outside of a handful of countries (notably France, UK and Germany), and there is no evidence that private finance in WSS has increased since the 1990s (Reis et al. 2024). On average, “private-sector finance for water has remained minor” (Alaerts 2019, 8). This is particularly true in the Global South where private sector financing of WSS accounts for only 7

per cent of the total; in Sub-Saharan Africa the figure is less than 1 per cent (Leigland et al. 2016, 4).

The World Bank's own research confirms these conclusions, noting that globally, private sector spending in WSS accounts for a mere 1.7 per cent of investments (Joseph et al. 2024, xvii) and a tiny portion of total private sector infrastructure financing (Kolker et al. 2016, 3; cf. Wu et al. 2016). The United Nations Inter-Agency Task Force on Financing for Development (the body tasked with addressing the financing needs of the 2030 SDGs) notes, moreover, that private sector investment appears to be decreasing and is "well below the peak reached in 2012" (United Nations IATF 2019, 61). The World Bank draws the sobering conclusion that for most public water operators, "private finance is almost non-existent" (Kolker et al. 2016, 1).

Why has the expected level of private finance failed to materialize? The reasons are various and speak to the structural barriers to increased private sector investment in water services. Much of the aversion stems from risk-return considerations around profitability. Early expectations of large profits and trillions of dollars of potential revenues quickly evaporated in all but the wealthiest countries or in locations where guaranteed rates of return had been negotiated (Bakker 2013). Today, low levels of cost recovery and the political challenges of collecting payments from low-income households have meant that many private water companies have scaled back activities in risky locations, changed tactics to focus on more value-added niche markets and services (such as desalination), or simply withdrawn altogether from money-losing contracts (Bauby 2014). From the perspective of private investors, this makes sense. Investors' remit is not to maximize public goods for the community, but to maintain and increase private returns for their shareholders (cf. Lazonick & Shin 2020).

Political backlash against water privatization may also help to explain why private water companies and investors have reduced their financial exposure in the sector. Widespread and often violent protests have served to erode expected returns (and sully the reputations) of many private water companies (Barlow & Clarke 2017). The UK has suffered recurrent summers of discontent recently as uncontrolled sewage flows into the seas and rivers, making them unseemly and unswimmable, with widespread calls for nationalization (Gibbs et al. 2024).

The growing trend towards remunicipalizing water services (that is, making them public after a period of private sector delivery) has created additional concerns in the private water market, particularly after high-profile cities such as Paris made their water services public once again (with French multinationals Veolia and Suez losing contracts in their own backyards) (Turri 2022). Private water firms have been relatively silent on the matter, but there are signs that they are increasingly worried about what remunicipalization means for their future (McDonald 2019; Umler & Gerlak 2019).

With a growing political backlash and an unfavourable risk-return outlook, it is little wonder that private water companies are unwilling to invest

more in a sector with shrinking opportunities for recovering costs and with political threats to their very existence. These realities speak to the “serious structural constraints” of relying on private capital to fund WSS needs (Leigland et al. 2016, 2). Most private investors see “water as a financial risk” and for that reason have not invested in the sector (Jägerskog et al. 2016). As the UN (2023, xii) bluntly commented in its *Synthesis Report on Water and Sanitation*, the water sector is “unattractive for investment.”

Having recognized this reality, international organizations such as the World Bank have been promoting policies of blended finance: “the strategic use of public taxes, development grants and concessional loans to mobilize private capital flows” (World Bank & UNICEF 2017, vii). Blended finance is now the centrepiece of the World Bank’s “billions to trillions” SDG agenda and its related “Maximizing Finance for Development” strategy. Although the emphasis has been on emerging and frontier markets where private investments are lowest, public incentives for private finance can be found in virtually every part of the world.

The UN Inter-Agency Task Force on Financing for Development writes that, “by shifting some of the risk or cost of a project from the private to the public sector, blended finance can enhance risk-return profiles for private creditors or investors.” The aims are to “leverage additional funds for the sector and reduce borrowing costs compared to a fully commercial arrangement” (United Nations IATF 2019, 86). In the water sector, it is argued that blended finance will “help overcome affordability and/or political constraints to borrowing ...[and] can create new relationships and opportunities between the water and financial sectors, which can promote the long-term goal of increasing commercial financing” (World Bank & UNICEF 2017, vii). As UNESCO (2023, 166) insists, blended finance “can help transform ‘nearly bankable’ projects into viable projects.”

There is nothing particularly original about this blending model, although there are new actors and new financing vehicles such as web-based “fintech” as well as expanded social mandates such as green financing. There is also an increased emphasis on microlending, particularly in low-income countries (Ikeda & Liffiton 2019; World Bank & UNICEF 2017).

Novelty aside, evidence suggests that blended finance is having little impact on WSS, particularly in the places it aims to target most, namely poor countries and localities. To date, blended finance in developing economies has not been widely used at scale in the water sector. A few isolated experiences have been supported by international donors, but these have mostly been in middle-income countries and have so far failed to be replicated at scale (Leigland et al. 2016, 4). Very few of these often generously subsidized efforts have met with success:

Despite mechanisms that promised to leverage private financing at the national or regional level, or within sub-sectors (e.g. sanitation), there is not one internationally recognized financing instrument that has facilitated

significant, sustainable private financing into the WSS sector in the last decade.

(Kolker 2022, n.p.)

As Bernards (2024) has observed, private finance is generally not interested in blended finance.

The blended finance that does exist is concentrated in highly profitable sectors such as financial services and energy, flowing largely to a small cluster of emerging economies such as Turkey, Nigeria, India, Brazil and China. Even then only 2 per cent of this amount is allocated to WSS (IFC 2017). Data from the Inter-Agency Task Force on Financing for Development reinforces these claims, demonstrating that flows to middle-income countries are nearly ten times those to lower-income and least-developed countries, while only 7 per cent of blended finance in water is aligned with SDG 6 (United Nations IATF 2019, 87–88).

As Summers and Singh (2024) note (one of whom is a former World Bank chief economist): blended finance has “not raised capital [or] substantially changed financing practices.” In fact,

2023 was a disaster in terms of support for the developing world. ... [R]ising interest rates and bond and loan repayments meant that nearly \$200 billion flowed out of developing countries to private creditors in 2023, completely dwarfing the increased financing from the international financial institutions. ‘Billions to trillions’...has become ‘millions in, billions out.’

As a result, the vast majority of WSS funding continues to come from public coffers. The public sector “dominates spending on water,” providing over 90 per cent of infrastructure investment (Joseph et al. 2024, xvii; see also Hall 2015). According to the High-Level Panel on Water (convened by the World Water Council and the OECD), “private money can rarely fully substitute for public finance in major water infrastructure—it can only be a junior partner in most cases, and even then will need comforts of various kinds” (WWC & OECD 2015, 58).

The majority of multilateral policy-making related to financing WSS nonetheless continues to focus on the private sector. The World Bank, for example, continues to insist that it is essential to mobilize financing from private sources (Joseph et al. 2024). The UN (2023, xii) also continues to maintain that “new investments [in WSS] must be attracted by better enabling environments,” while the Global Commission on the Economics of Water insists on “crowding in” private companies, banks and institutional investors (GCEW 2023, 8).

This emphasis on private financial solutions is also reflected in the academic literature. A comprehensive survey of research on the topic found that over 75 per cent of publications written between 1989 and 2015 focused

on private sector financing for WSS, while only 5 per cent explored public investment (Kumari & Sharma 2017).

This ideological push for private investment appears to have become something of a self-fulfilling prophecy by undermining public spending. As Heidler et al. (2023, 6) note in their review of 60 years of MDB involvement in the water and sanitation sector, calls for greater private finance investments have “delegitimiz[ed] the role of public finance,” arguing that “if this discourse has had any effect at all it has been to reduce public investment in water supply and sanitation.”

Public banks to the rescue?

There is one potential source of WSS finance that has been largely ignored in the literature to date: public banks. Our focus is largely on public banks that operate at a national level (as opposed to multilateral public banks such as the World Bank or African Development Bank). National public banks can be local, regional and even international in scope (Marois 2021; OMFIF 2017). There are public banks that have explicit mandates to finance water services, with some having done so for decades. The Dutch *Nederlandse Waterschapsbank NV* (NWB), for example, was formed in 1954 with the sole mandate of lending to the country’s public water authorities (Schwartz & Marois 2022). The German *Kreditanstalt für Wiederaufbau* (KfW) is another example. Founded in 1948 as part of the Marshall Plan for reconstructing post war Europe, KfW is Germany’s third-largest banking institution, and water and sanitation is a major part of its lending portfolio at home and abroad (Marois 2017; Mertens 2021).

Many public banks in the Global South also have mandates and commitments to finance water and sanitation (as we shall see in this book) and have been important actors in advancing their country’s SDG 6 ambitions. Public banks in the Global South have long been on the radars of major international development agencies, and many have joined the aforementioned FiC Summit, which represents more than US\$23 trillion in public bank assets (FiC 2023).

We emphasize, once again, that public banks are not a panacea for financing WSS in the Global South. While they have substantial resources, individual public banking capacity varies significantly within and across countries. Neither should it be expected that public banks cover the massive financial needs of the SDG 6 agenda on their own, or that WSS operators should be expected to take on massive debt loads to fund the improvements required. National governments and aid agencies must assist with these spending needs in ways that do not burden water operators with unsustainable debt or public banks with the sole responsibility for holding this responsibility.

That said, public banks can make a significant difference given their financial capacity, ability to leverage funding at low rates, knowledge and expertise, and potential mandates to advance progressive social, economic

and environmental goals. Public banks can also build synergies with other public services and institutions via public–public collaborations that go beyond finance to foster an inclusive pro-public ecosystem (Marois & McDonald 2022; Marois et al. 2024).

We describe some of these potential outcomes in more detail below (along with some cautionary notes), but we first provide a brief historical overview of national public banks and the theoretical debates surrounding them to help familiarize readers with the topic and to better situate ourselves within these discussions.

What is a public bank?

Despite their long history and presence around the world, there remains relatively little scholarly agreement as to what constitutes a public bank. Public ownership is one facet, but there is no consensus as to what level of state ownership or control is required. There are some publicly owned banks with no political representation on their board (for example, the Dutch NWB), while others have political representation but no direct state ownership (for example, Banco Popular in Costa Rica) (Marois 2021).

We take a broad evidence-based definitional approach, describing public banks as *financial institutions that are majority owned by the state or some other public entity, or governed under public law or by public authorities, or that function according to a binding public mandate* (or any combination thereof) (Marois 2021, 11–2). We note that public banks can operate at a municipal, national and international level, with some operating at multiple scales simultaneously (OMFIF 2017; Scherrer 2017; Marois 2021; Xu et al. 2021; Clifton et al. 2021; Griffith-Jones et al. 2023).

There are different institutional forms of public banks (Marois 2021, 33–4). Public *commercial retail* banks (also known as first-tier banks) typically have branch-based networks, accept personal deposits and focus on providing daily financial services for individuals, households, small and medium enterprises, corporations and governments. Public *development* banks usually do not accept individual deposits or provide daily financial services. Instead, these development banks tend to focus on raising larger quantities of cheap capital to support big, longer-term investments, offering technical expertise and supporting government policy objectives. Public *universal* banks combine commercial and development functions, both taking deposits and offering development finance. This book mostly focuses on public development banks but includes a case of public universal banks (Costa Rica) and makes reference to public commercial banks (India).

This raises the question of public purpose and public mandates, by which we mean the nature of the goals of a public bank and how these goals are legally and operationally codified in policies that inform practices (Barrowclough & Marois 2022). Here again there is no consistent definition or understanding, let alone consensus, on whether public banks are levers

of government policy or should be catalysts of private finance or are simply tools of corrupt politicians.

There have been two dominant economic perspectives that have tended to constrain rather than enable thinking about the potential of contemporary public banks. On the one hand, conventional neoclassical economists assert that public banks inherently serve the whims of politicians, and as such are structurally prone to political abuse, thus rendering public banks less efficient than private banks in terms of generating profits and broader economic growth (La Porta et al. 2002; Marcelin & Mathur 2015). Heterodox economists, by contrast, argue that the essential purpose of public banks is to provide additionality, that is, to focus on doing what private banks cannot or will not do for economic growth and innovation. In this perspective, public banks are seen to have a fundamentally different logic than private banks and are meant to stabilize markets and help overcome market failures (Mazzucato 2015; Ribeiro de Mendonça & Deos 2017; Henderson & Smallridge 2019).

Conventional and heterodox views both adopt conceptual understandings of public banks that are “pre-social,” that is, having qualities and characteristic that are not subject to historical change. The result is a literature that defines the ultimate purpose of public banks in predetermined yet polar opposite ways: one essentially negative (neoclassical) and the other positive (heterodox). This has promoted an ahistorical and static reading of public banks that is unable to account for their institutional diversity and dynamism, let alone the nature of power and political struggles over what public banks do—and why—in different place- and time-bound contexts within the framework of global capitalism.

Our approach is to chart a more realistic pathway to understanding. We begin by viewing public banks without recourse to an essential purpose, good or bad. Public banks are approached openly, to enable analysis that can work with historic diversity and operational complexity without having to graft some ultimate purpose onto all public banks as a collective. While public banks are institutions located within the public spheres of states, they can and do undertake financial intermediation and banking functions without an innate public direction or policy orientation. As such, public banks can operate according to public and/or private interests and, indeed, logics. This is because public banks exist and persist within the wider structures of class-divided, gendered and racialized global capitalism and, like all public entities, they are contested and evolving institutions that are made and remade in light of competing and often unequal power relations (Marois 2021). This constitutes a “dynamic” view of public banks—one which charts a realistic pathway between polarized neoclassical and Keynesian perspectives (Marois 2021).

While the public banking economics literature has shown little appetite to revisit its more static conceptual worldviews, there has emerged resurgent interest in and debate over what public banks can and ought to do within society (Ray et al. 2020; Mertens et al. 2021; Clifton et al. 2021; Marshall

& Rochon 2022; Griffith-Jones et al. 2023). In the USA, for example, civil society organizations and political leaders are pushing to create new public banks for the provision of more equitable and sustainable financial services in communities, notably in marginalized communities, guided by normative commitments to addressing racial reparations with Black and Brown communities (Sgouros 2022). In Europe, academics, policymakers and civil society have focused more on the potential of “greening” public banks (Marodon 2022). There is also a growing global interest in the democratization of public banks, as well as their contribution to definancialization (by which we mean a rolling back of the influence of financial motives, financial markets and for-profit financial actors and institutions in the operation of domestic and international economies) (Karwowski 2019; Block & Hockett 2022).

Despite these differences, there is a converging consensus on what public banks can do well—at least from a shared commitment to supporting economic development that is equitable, just and sustainable. While by no means applicable to all public banks, there is growing empirical evidence that they *can* function in the public interest and according to public purpose in a number of important ways: as providers of long-term and low-cost financing; as less-financialized, place-based lending institutions; as counter-cyclical and crisis-facing lenders; as funders of decarbonization and ecologically sustainable projects; as policy partners of government and community; as hubs of knowledge, expertise and development networks; and as political and economic counterweights to mainstream financial institutions (Scherrer 2017; Mikheeva 2019; Ray et al. 2020; Marois 2021; Cassell 2021; Barrowclough & Marois 2022; Griffith-Jones et al. 2023; Marois et al. 2023). This book contributes to evidencing the promising practices of public banks.

A short history of public banking

The foundations of today’s public banking institutions emerged hundreds of years ago in European city-states. Barcelona created the first municipal bank in 1401, the Taula de Canvi, to help balance budgets and manage city finances (Milian 2021). By the 16th and 17th centuries, public banks had emerged in Northern Europe and the American colonies (Roberds & Velde 2014). By the start of World War II, hundreds of public banks existed worldwide, from Argentina to Canada to Norway to Turkey. In most cases, public banks provided affordable financing and development expertise. But the diverse histories of public banks in different societies also remind us that public banks are not inherently “good,” with many having been complicit in colonialism, slave-trading, war-making, anti-worker campaigns and the dispossession of Indigenous peoples’ lands by White farmers (McNally 2020; Marois 2021). There remain ongoing problematic practices and pitfalls among public banks that continue to demand that scholars and civil society remain vigilant in holding them to account and making them better (Antonowicz-Cyglycka et al. 2020; CEE Bankwatch Network 2021).

The era following World War II witnessed a massive expansion in public banks due to their ability to be crisis-facing financial institutions (cf. Case-Ruchala 2024). Postwar reconstruction gave rise to the German KfW, for example. Countries like Turkey created new banks to support industrial development, small businesses and municipal infrastructure (Marois & Gungen 2016). National liberation struggles from Cuba to India saw newly independent governments nationalize private and colonial banks within their territories and create new ones (Marois 2021). In Europe, a new range of regional banks emerged, including the Council of Europe Development Bank (1956, as the Resettlement Fund), the European Investment Bank (1958) and the Nordic Investment Bank (1975).

Global transitions to neoliberal strategies of development since the 1980s brought with them economic and ideological pressures to privatize existing public banks (von Mettenheim & Del Tedesco Lins 2008), while multilateral development institutions militated against public bank expansion (World Bank 2001). Perhaps as a result, the study of public banks nearly evaporated. The scholarship that did take place was dominated by conventional economic views advocating privatization (La Porta et al. 2002; Barth et al. 2008).

Recent developments have renewed interest. The 2008–09 global financial crises not only brought the financial system to the edge of collapse but also threw communities and working-class families around the world into economic despair. The 2015 Paris Agreement on climate action has underscored the failure of private finance to meaningfully confront climate change. The outbreak of the COVID-19 pandemic witnessed private lenders withdrawing support when it was most needed.

Scholarship has since documented progressive alternatives provided by public banks in response to these crises (Marois 2012; Brown 2013; Scherrer 2017; UNCTAD 2019; McDonald et al. 2020; Marois 2021; Griffith-Jones et al. 2023). It is widely agreed that public banks are experiencing a “burgeoning renaissance worldwide” (Xu et al. 2021, 271; cf. Mertens et al. 2021; Clifton et al. 2021). Not only have the numbers and combined assets of public banks been on the rise, “but their roles and prominence in the development agenda has also been boosted” (Bilal 2021, 6). This is perhaps nowhere more visible than in relation to climate, the SDGs and the global ecological crisis (Marodon 2022).

Nevertheless, there remains a sticky assertion that development transitions necessarily require *more* private finance because of perceived public bank incapacity (Wang 2016; Newell 2021). This claim has stuck not only due to conventional preferences for market-based development but also because of a severe underestimation of global public banking numbers and financial capacity. The main culprit here is the World Bank, whose reports have historically failed to capture the true extent of public banking capacity for years: a 2013 report found only US\$2 trillion in public banking assets while a 2018 survey found a mere US\$940 billion (World Bank 2013; de Luna-Martínez

et al. 2018). For its part, the United Nations Inter-Agency Task Force on Financing for Development states that “national development banks” have less than \$5 trillion in assets; hence the perceived need to mobilize private finance to reach the anticipated US\$90 trillion in sustainable infrastructure investments needed to achieve the SDGs (United Nations IATF 2019). Only in 2022 did the IATF Report update its data, identifying the “large footprint” of some 527 public development banks with assets totalling US\$13 trillion—data based on research undertaken by FiC researchers (Xu et al. 2021). This more recent accounting of the world’s public development banks is a welcome corrective. Yet, the preferred focus on public development banks excludes other types of public banks, again leading to an underestimation of the actual capacity of all public banks globally.

Based on BankFocus (2024) data, we estimate that there are more than 900 public banks (development, commercial and universal) with combined assets of US\$57 trillion. Adding in the world’s public multilateral banks and central banks, the total assets of these 1028 public financial institutions exceeds US\$86 trillion—an amount 50 per cent greater than the 2023 GDPs of the USA, China, Germany, Japan and India combined (see also Marois 2021, 55). Seen in this light, the “necessity” of private finance fades substantively, suggesting that there is an urgent need to better understand the full scope of the public financial institution ecosystem. There is enormous scope to align and mobilize total public banking resources towards sustainable and equitable transitions.

The focus of this book is on public banks in the Global South, with case studies in Africa, the Middle East, Asia and Latin America. While there is significant public banking capacity in all these regions, numbers and assets vary considerably, with larger countries often home to the largest institutions. According to BankFocus (2024) data, Africa has 104 national and sub-national public banks and financial institutions that hold US\$673.5 billion in assets. The Middle East has 61 institutions with US\$1.42 trillion in assets. Latin America has 127 institutions with US\$1.17 trillion in assets. Asia is hands down the largest public banking region, with 315 institutions that hold some US\$38.8 trillion in assets. The top 11 Chinese banks alone have over US\$24 trillion in combined assets.

It should come as little surprise that so-called developing countries and emerging markets in the Global South have hundreds of public banks with trillions of dollars in combined assets. As they emerged as sovereign states, most Global South countries created financial systems that were bank-based (as opposed to the more market-based system characteristic of the USA or the UK). Bank-based financial systems are important because the deposit-taking institutions (the commercial and universal banks) absorb and hold scarce savings within the country, and then mobilize this money as investment capital within the country’s borders, in what we call domestic resource mobilization. Deposit-taking banks would work with development banks to find

ways of financing large infrastructure projects (like water, energy and transportation) and key economic sectors (like agriculture, industry and exports). Development banks would often work with foreign governments and development agencies to also secure foreign currency loans to purchase imports. Indeed, public banks were often the dominant financiers of development in the Global South (Marois 2012) and in many countries continue to play a vital role in financing essential infrastructure.

Research methods

As outlined above, our perspective on public banks is a “dynamic” one, seeing them as neither inherently good nor bad but rather as historically contested social, political and economic institutions shaped by forces that go beyond their ownership status. We did not set out to prove one perspective of public banks over another. Our aim has been to cast a wide inquisitive net to see how and where public banks operate in the water and sanitation sector in Asia, Africa, the Middle East and Latin America and what (potentially positive) lessons there are to be learned from these experiences.

As with our previous research on public banks and public water in Europe (Marois & McDonald 2022), we developed standardized, semi-structured questionnaires that could lead to multiple types of responses. We used these questionnaires to interview senior officials at public banks and public water operators in each of the case studies. The survey instruments were workshopped in advance by members of the research team to ensure a consistent comparative reference point, while also allowing for flexibility where local context demanded. Thus, case studies were guided by a common research framework but sufficiently flexible for the disparate realities of public banking and public water institutions in the Global South.

Our choice of case studies was driven by two factors. First, we aimed for geographic and institutional diversity, both in terms of public banks and public water operators. In doing so, we identified locations where public banks have been active in lending to the water sector in relatively successful ways as well as locations where relations between public banks and public water operators have been either non-existent or fraught.

The second consideration in case study selection was the availability of suitable researchers, both in terms of familiarity with the country and institutions in question as well as their capacity to operate across the formidable disciplinary and methodological gap that exists between academics that focus on public water and those who research public banks. In some cases, it was possible to bring together researchers from both sectors to collaborate, while other cases were completed by authors who became quick studies of the sector they were less familiar with. In all instances, peer review alongside expert editorial oversight helped to reduce but not eliminate some of the incongruities between the final outputs.

Cautionary notes

Our research identifies some cautionary tales. It would be remarkable if there were none, and it is vitally important that pro-public forces confront these challenges head-on.

The first of these cautionary tales is that progressive developments should never be taken for granted. As dynamic institutions produced in class-divided, gendered and racialized global capitalism, public banks are constantly being made and remade in ways that are impossible to predict. As the chapter on Brazil demonstrates, positive advances can be quickly reversed—ideologically, institutionally and legally. After decades of supportive public bank engagement in the WSS sector, Caixa and BNDES were transformed into pro-privatization institutions during the tenure of Jair Bolsonaro from 2019 to 2023. The re-election of the Workers Party appears to have reversed that trajectory somewhat, but institutional and ideological inertia can take years to alter, demonstrated by the fact that public banks in Brazil are still underwriting some of the largest privatizations of water and sanitation in the country's history, despite widespread public opposition (see the chapter on Brazil in this volume). Relatedly, we continue to see pressure by public banks (at least in narrative) for cost recovery in public water, even when this is far beyond the realm of the possible, such as the case of KfW in Palestine.

There are trade-offs with regard to degrees of state engagement and oversight. Most public banks have some form of governing autonomy from the level of government they are associated with. Such arm's-length arrangements provide a degree of independence that allows bank officials and workers to manage day-to-day operations without undue political interference. But forms of independence can create uncertainty around the role the state plays in acting as a financial backstop. Sovereign guarantees generally improve the creditworthiness of public financial institutions, which in turn lowers the costs of lending and provides access to larger pools of capital. A lack of clarity on this front can limit the options available to public banks and drive up the costs of infrastructure projects. The Dutch NWB is limited in this regard (Schwartz & Marois 2022), and banks that are relatively new to the WSS sector can learn from examples such as the Banco Popular in Costa Rica (see chapter in this volume). At the same time, a lack of coordination with governments can undermine the long-term planning and state support needed to develop, maintain and upgrade large-scale WSS infrastructure. In this regard, national development plans in the Philippines and Vietnam have helped to enable public banks in the water sector.

There are also trade-offs between efficiency and scrutiny. Due diligence is central to any lending process, but overly bureaucratic processes can cause delays and even push water operators to private lenders, as demonstrated in the cases of Uganda and Tanzania, Vietnam and Argentina in this volume. Striking the right balance between efficacy and inquiry is never easy and will

change over time as knowledge and relationship building expands, making it important to constantly reassess processes and procedures.

If domestic public banks (must) finance themselves on international capital markets, foreign exchange fluctuations are another concern, particularly in the Global South where currencies are more susceptible to variability due to liberalized financial markets, commodity price instabilities and other factors that are often out of a country's direct control. One way to address this could be to have multilateral financial institutions offer currency protection to local public banks, as illustrated by the issuance of a 10-year green revenue bond valued at TZS 53.12 billion (US\$20.8 million) in early 2024 to support the expansion of infrastructure at the Tanga Urban Water Supply and Sanitation Authority in Tanzania, backed by the United Nations Capital Development Fund (UNCDF). Acting as a third-party guarantor, UNCDF's support allowed the water authority to tap into local capital markets, raising funds in local currency and reducing risk and volatility (UNCDF 2024). But domestic capital markets are sometimes thin, and interest rates often high in the Global South, limiting the potential for raising finance in local currencies in certain cases. There may also be concerns with the kinds of conditionalities imposed by collaborating multilateral financial institutions. India overcame this funding hurdle by fostering a large consortium of domestic public banks to finance a regional water project. Yet, where private finance plays a significant role in the capitalization of public banks, the scope for progressive lending will be circumscribed by the discipline of global financial markets.

Most importantly, there is a paradox at the heart of public banking that raises the biggest concern of all: increased debt. The whole point of public bank lending is to amortize the costs of major infrastructure spending over periods of time that go beyond the budgetary cycles of governments. But given the scale and urgency of WSS financing needs, no government (let alone a single water operator) can borrow themselves out of the financial holes they are in. Even near-zero interest rates can create repayment schedules that overwhelm public authorities and governments (which can rise dramatically with changed global economic conditions). This is particularly true in countries most in need of WSS spending because they tend to already be heavily indebted. But wealthy countries in the Global North face a similar conundrum, with few politicians willing to take on the levels of debt necessary to address the true extent of WSS needs (Marois & McDonald 2022).

Pressure on public banks to commercialize their operations is also omnipresent. Market-oriented regulatory changes have tended to shrink the spaces in which they can legitimately operate, while narrow performance assessments heap pressure on public bank managers to (inadvertently) compare themselves to their for-profit counterparts (Scherrer 2017; Oberholzer 2023). Public banks are increasingly being tasked with finding ways to de-risk private sector investments while pursuing public purpose impacts, the contradictions of which typically lead to cost increases and poorer quality public infrastructure (Marois 2021; Mertens et al. 2021; Eurodad 2022). At the same time,

otherwise effective public bank collaborations can be undermined by private corporations trying to extract excessive profits in the construction of public WSS infrastructure, as in the case of India in this volume. Heavier capitalization by higher tiers of government, cross-subsidization from more profitable activities, and collaboration amongst public banks (including deposit-taking commercial ones) can help to eliminate these marketization pressures.

Ultimately, though, public banks can only be part of the solution. There is no alternative to massive injections of public funding in WSS by governments and, in the Global South, international aid and development agencies (Pickbourn et al. 2022). These resources must also be allocated in less colonial and more democratic, transparent and equity-oriented ways than it has in the past. This is a tall order, but if done in ways that seek to expand the financial landscape through closer collaboration with national public banks, public water operators and water users, the potential for multilateral public banks to play a catalytic role in expanding and improving progressive public WSS is magnified considerably.

Promising findings

Positive findings from the case studies can be grouped into seven categories, summarized here. The first and most important lesson is that national public banks can provide large amounts of relatively cheap capital that is “patient.” Our cases show long-term time horizons that match the physical, economic and environmental needs of water and sanitation infrastructure, much of which lasts for decades. This is opposed to the shorter-term profit-motivated lending that drives private finance (EPSC 2017). Public banks are typically able to provide lending on terms that private banks and investors are seldom able or willing to compete with. This is a finding that is consistent with the wider literature on the advantages of public bank lending for public infrastructure (Bilal 2021; Marois 2021; Marois et al. 2023; Mertens et al. 2021). Although the levels of capitalization of some of the public banks in this book are lower compared to those we investigated in the Global North (Marois & McDonald 2023), there is considerable potential (and need) to expand public bank capitalization through capital injections from national governments. As we shall see below, public–public collaborations with other public financial institutions can help to expand their ability to finance WSS.

Second, national public banks have localized expertise on the social, political and ecological aspects of water and sanitation that multilateral lenders often lack. Despite the self-proclaimed “knowledge bank” moniker touted by multilateral institutions such as the World Bank, their approach to lending is generic, market-oriented and often neocolonial. As Bazbauers and Engel (2021, 270) note, most multilateral banks “basically follow the organizational blueprint laid down by the World Bank, with variations emerging due to differences in capital, shareholders, capabilities, and mandates.” Deepening the sectoral knowledge of national public banks—especially

through more direct engagement with public water operators—is therefore critically important (as highlighted in the chapter on the Philippines). Support from multilateral banks can assist in this regard but must not seek to replicate a one-size-fits-all approach to training. The better-resourced multilateral banks must take culturally and politically appropriate capacity building seriously rather than treating local public water and public bank officials as subordinates in a global hierarchy of finance emanating from Europe and North America (as highlighted in the chapter on Uganda and Tanzania).

A third advantage of public banks is their potential to definancialize lending by rolling back the influence of financial motives, financial markets and for-profit financial actors and institutions, while foregrounding local interests (Karwowski 2019; Marois 2021; Block & Hockett 2022). Broadly defined as the growing power of financial actors in everyday activities, with a shift in the locus of profitmaking from the “real” to the “financial” economy, financialization has come to characterize private sector involvement in core services and infrastructure through complex (and often opaque) vehicles such as private equity funds and the securitization of revenue flows (Ahlers & Merme 2016; Loftus et al. 2019; Reis et al. 2024). The public banks studied here have largely resisted this trend, avoiding financialized lending vehicles such as blended finance in public infrastructure while promoting equity and sustainability measures that go well beyond narrow financial indicators. Costa Rica’s Banco Popular is an exemplar in this regard, notably with its focus on gender and ecology, as is India’s NABARD in the convening of a large public banking consortium.

A fourth positive lesson is the potential for public banks to participate in and advance public–public partnerships (PUPs), defined as institutional arrangements between public institutions operating in different sectors or jurisdictions which aim to promote shared public service goals through synergistic engagement such as co-financing, knowledge sharing and capacity building. PUPs are popular within the water sector (Ferrero et al. 2024), and there are signs that they are emerging between public banks and public water utilities and beyond. The chapters on Costa Rica and Argentina, for example, describe arrangements between national water operators, community-based entities and public banks. Driven in part by the urgency of COVID-19, these arrangements appear to have opened new forms of engagement. In Uganda and Tanzania, local public banks are actively expanding their relationships with water operators and have expressed an interest in escalating the co-lending they do with multilateral banks operating in the region (with the proviso that they have more say in decision making). By definition, though, our research into public banks and public water excavated these already-existing partnerships, which in some case stretch back decades but have been given renewed vigour in light of SDG 6.

A fifth lesson is the importance of guarantees from national governments. Loans from public banks such as KfW are guaranteed by local governments. However, the advantage of local public banks is that they can lend in the

domestic currency, avoiding currency mismatches and not burdening the capital account. In principle, money issued by domestic public banks can multiply levels of demand, especially if investment plans do not rely on foreign exchange (cf. Oberholzer 2023).

In Costa Rica, for example, Banco Popular can lend at cheaper rates because it is widely understood that the bank has an implicit sovereign backstop, despite its unusual governance structure (Marois 2021). Guarantees from multilateral institutions could help in this regard, improving the credit ratings of local public banks in the Global South as well as assisting with their capitalization (Marois & Volz 2024). Domestic public banks thus have a unique potential to provide finance for priority sectors such as WSS (Oberholzer 2023).

Sixth, our case studies show that domestic public banks can issue smaller-scale credits, which is a notable difference to big multilaterals like the World Bank or African Development Bank, which are usually limited to financing large-scale infrastructure projects (Reis 2022). Significant success can often be better achieved through small-scale WSS solutions. Here, domestic public banks can have a key role to play, as shown by the case of Vietnam and Philippines in different ways. So too can smaller-scale multilateral banks, such as the innovative work of FONPLATA in financing Argentina's Water & Work and Sewage & Work programmes run by the Buenos Aires municipal water utility for extending water and sewage networks to low-income neighbourhoods. Local public banks and smaller regional multilaterals can have a complementary role to larger MDBs' focus on large-scale WSS infrastructure, financing the "last mile" problem while also achieving social impacts through generating income for poor households.

Lastly, the research strongly suggests that public banks can persist in ways that are less prone to political and electoral cycles (although never immune from them), given their institutional structures and sectoral expertise, providing the potential for lending strategies and institution building that can extend beyond political timelines and personalities. Long-term infrastructure requires long-term planning. Public bank and public water officials in well run and governed institutions can negotiate terms that are suited to the infrastructural needs of a country.

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