Working Paper

# Mobilising finance for WASH: getting the foundation right

Lesley Pories, Catarina Fonseca, Victoria Delmon

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**ABSTRACT**

Mobilising finance to address the SDG 6.1 and 6.2 financing gap successfully and sustainably will require more than innovative or sophisticated financial vehicles and mechanisms. To move to scale, private and public investment hinges on core foundational issues being addressed in the water sector by service providers, governments and other enabling environment stakeholders.

This paper unpacks what is meant by the enabling environment for finance in WASH and presents real examples of how these bottlenecks are being overcome by innovators in the sector.

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# EXECUTIVE SUMMARY

## WHY THIS PAPER?

A substantial increase in sector financing is needed for governments to achieve Sustainable Development Goal 6 (SDG 6): Estimates by The World Bank indicate that the present value of additional investment needed in WASH through 2030 will exceed US$1.7 trillion (Hutton & Varughese 2016). Existing funding falls far short of this amount, with some countries needing to increase their investment in the WASH sector by up to six times. Governments also have limited room to borrow as they are facing internal fiscal constraints and high debt levels. Where Official Development Assistance (ODA) is available, borrowing countries are also struggling to absorb it. Much of the available public and ODA financing will be needed for extending access to unserved and poorer population in marginalised and remote areas, and for sanitation.

As government and donor funds cannot meet the funding needs alone, stakeholders have concluded that more commercial finance needs to be attracted into the sector, matched with a similar increase in public finance[1].

Commercial finance[2] generally seeks low-risk, dependable-return investments. Commercial lenders want to see that a borrower is financially healthy and well managed (i.e. they are "credit worthy") and that the basics are taken care of, including:

- a clear legal mandate and scope for service provision;
- financial capacity – solid financial track record with a positive net cash flow over several years;
- strong management – including business-minded leadership, operational efficiency and strong performance, financial capacity (i.e. strong revenues to cover costs of operations and debt service), good asset management and business planning;
- track record of borrowing and repaying debts; and
- an asset base against which collateral can be taken.

WASH sector service providers in most developing countries meet few of these requirements. **Shortcomings that undermine the sector's ability to attract finance include underdeveloped national financial sectors; a lack of vision by governments to seek alternative sources of finance; ineffective regulation; low cost recovery; weak governance; mismatch of supply and demand of finance, low service provision and operational efficiency of urban and rural WASH service providers; and a lack of anti-corruption measures.**

Furthermore, often the bulk of investments needed to fulfil the SDG mandate to leave no one behind and reach the poorest are for supply of water and sanitation to more remote, poorer or less urbanised neighbourhoods and for sanitation, which are likely to be less commercially viable. To manage some of these challenges and make the sector more attractive to commercial finance, stakeholders within the WASH community have begun developing blended finance[3] mechanisms. These are designed to pool public and donor funds to catalyse private investment in developing countries by de-risking individual projects and schemes.

**Without addressing foundational issues in the sector, however, any finance mechanism, whether public, private or blended, will be a short-term, band-aid solution and the sector will continue the cycle of dependency on external assistance rather than fixing the root causes and building self-sufficiency.**

[1] See Glossary.
[2] See Glossary.
[3] See Glossary.

A holistic, systems approach is required to reform the sector by addressing foundational issues. As natural monopolies, WASH service providers have few incentives to improve service quality or expand to less commercially viable areas or to become efficient. This paper identifies 10 key issues, which can be grouped under three categories: (1) the governance, institutional, policy, tariff and regulatory arrangements to ensure transparency, consistency and sustainability, (2) the technical and financial efficiency of service providers to sustain creditworthiness and (3) issues related to the supply of finance.

Each country and service provider will have different strengths and weaknesses across all three categories, requiring varied needs and assorted levels of urgency. This nuance understood, **sustainable success in mobilising finance at large scale is dependent on a reasonable level of performance across all 10 foundational areas.** Moving forward, this categorisation can provide guidance to governments and development agencies on where to focus their efforts, working towards a common vision.

While new finance vehicles should help draw in more commercial finance by hedging some risks and inherent constraints associated with lending to WASH providers, **the sustainability and potential for scaling these financial solutions will require complementary investment in addressing basic foundational issues in the enabling environment as characterised above.**

## OBJECTIVES OF THE PAPER

Governments have committed to SDG 6.1 and 6.2, and finance is essential to achieve those goals. Attracting the necessary finance to the sector will depend increasingly on the strength of the enabling environment. Addressing these key issues should help to ensure that investments into the WASH sector result in solutions that endure over time.

The main objectives of the paper are to:

1. Increase the base level of understanding about the enabling environment for WASH finance with a focus on 10 key issues facing the WASH sector that need to be addressed;
2. Identify solutions to overcome these foundational issues, using real examples, that can be promoted by governments at the sector and service provider levels, and, where appropriate, by the WASH financing community.

The paper draws on existing recent literature, interviews and conversations with sector experts, and the practical experience of IRC, Water.org and The World Bank.

This paper does not advocate for a specific type of financial instrument (e.g. commercial loan, bond, Public Private Partnership (PPP)) or approach for reaching technical and financial efficiency. However, because the WASH sector is highly decentralised and revenues are based in local currency, the paper focuses on increasing access to *domestic* finance rather than international, public as well as private.

## AUDIENCE

This paper is aimed at all stakeholders interested in understanding and expanding access to finance for WASH in developing countries and those advising them. It builds on and expands the first key point that was highlighted in the 2017 IRC-Water.org position paper, “Financing WASH: How to increase funds for the sector while reducing inequities”, while also drawing on World Bank research and other sector resources (see References) and the recommendations of the 2003 Camdessus report, “Financing the Water Sector” *(see References).*

## STRUCTURE OF PAPER

The paper has five sections. Section 1 reviews the background for financing the WASH sector; Section 2 assesses the foundational issues that relate to overall sectoral access to finance; Section 3 analyses the foundational issues that relate to access to finance for WASH service providers, Section 4 reviews the foundational issues related to the supply of finance; and Section 5 makes key recommendations. The glossary provides an explanation of financial terminology for non-experts.

## Section 1

# How did we get here? A brief background of financing the WASH sector

### 1.1 THE DEMAND FOR DOMESTIC WASH FINANCE: SERVICE PROVIDERS AND GOVERNMENTS

The WASH sector is capital-intensive – piped networks and treatment systems are expensive to build and maintain. To cover costs, funding ultimately comes from three main sources, commonly referred to as the "Three Ts": tariffs from customers, taxes from domestic taxpayers, and from voluntary transfers (from country governments via grants[4] and external donors or philanthropic foundations in the form of grants and/or ODA. Of the three Ts, tariffs should be the most reliable long-term source of funding for service providers, as collection is generally within their control. Budget support from taxes can be less predictable long-term, as it will depend on annual budget allocation and actual disbursement of allocated funds by government. As debt to GDP ratios increase, governments are facing limits on how much they can borrow[5].

Because WASH provision is considered a public good, governments (developed and developing alike) often feel pressure to keep tariffs low. Leigland et al. (2016) observe, "Based on data from 605 developing country utilities in the IBNET database (2013), just 17 percent of these utilities cover their Operation and Maintenance costs and create a surplus that could potentially be used to mobilise commercial borrowing." If revenues from tariffs do not cover costs of operation, much less costs of capital investment (capex) and financing, then service providers cannot carry out long-term asset management, fund capex out of revenues or raise finance. As a result, WASH service providers have grown dependent on grant funding from budget allocations and ODA to finance investments. WASH comprised 57 percent of total ODA flows to the water sector from 1995 to 2014 (Winpenny et al., 2016).

This dependency on grant funding has effectively reduced the need for WASH providers to "act like a business", focus on service delivery and customers and have the organisational capacity to repay loans. It has also reduced the incentive to set water user tariffs at a rate that covers operational costs or build up financial reserves. Finally, it has also led to limited attention on building organisations that have the organisational and financial management underpinnings to be considered credit-worthy.

The macro-level momentum around finding adequate funds to cover SDG investments and accessing commercial finance for this purpose has been driven by donors. Few developing countries are taking concrete steps to reduce the dependency of the WASH sector on grants and concessional finance, even where service providers have improved their efficiency.

### 1.2 THE SUPPLY OF WASH FINANCE: AID AGENCIES, DEVELOPMENT BANKS, OTHER LENDERS AND INVESTORS

As already noted, the bulk of WASH investment in developing countries has traditionally been concessional[6]. The 2017 UN-Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS) Report observed that external aid comprised a majority of non-household-provided WASH financing in 18

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4 See Glossary: development cooperation grants.

5 UNCTAD Deputy Secretary-General Isabelle Durant said recently that the debt-to-GDP ratio exceeded 70 percent in a fifth of emerging and middle-income countries and was more than 60 percent in low-income countries in mid-2018 (UNCTAD, 2018).

6 See Glossary.

out of 75 responding countries. Furthermore, 10 countries indicated that more than 20 percent of WASH financing is received from external sources.

Supply of finance into the WASH sector is insufficient to achieve the SDGs, but it is also heavily focused on infrastructure investment or discrete projects, with limited focus on sector reforms, strengthening of the enabling environment and removal of bottlenecks in the flow of financial resources. Governments, who are responsible for repaying concessional debt, typically chose to borrow from multilaterals for project-focused interventions or infrastructure (95 percent of total water funding) rather than for financing major sector reforms. Using public finance, concessional finance and private finance to construct "backbone" infrastructure (i.e. production and transmission infrastructure such as treatment plants and major underground piped networks) is the way most new OECD countries have funded bulk water infrastructure. Israel, Australia, Korea and Singapore have all used a version of this approach.

Grant-funded technical assistance, which has typically been funded by bi-lateral donors, philanthropic organisations, or multilateral organisations through Trust Funds rather than concessional finance, has with some exceptions typically been issue-based support, rather than strategic, longer-term engagement to solve foundational bottlenecks. Winpenny et al. (2016) observed that 91 percent of all ODA commitments to the water sector from 2010–14 period was allocated to project-type interventions and only one percent was allocated to experts and technical assistance. While some of these approaches are proving helpful to finance one-off investments or provide short-term solutions (World Bank, 2016), they do not address the underlying foundational challenges for the WASH sector which need to be fixed if affordable commercial domestic finance is to be scaled and sustained.

Attracting commercial finance into the WASH sector of developing countries, meanwhile, has proven to be a hard sell that has been largely unsuccessful to date. Paul Horrocks, Manager for the Private Finance for Sustainable Development initiative at the OECD, observed[7] that "over the past 4 years [2014-17], $81 billion of development funding was mobilised from the private sector. Only 1.9 percent of this amount was mobilised for water. The WASH sector is, despite the demands and needs, not doing well". The WASH sector in most emerging markets is perceived as a high-risk sector despite the reality that the provision of water supply, sanitation and hygiene, often in markets with little competition, actually has the components of a lower-risk investment if the correct foundations were in place. This is indeed the case in most OECD countries where foundational issues are clear and commercial investments in water service providers are seen as low risk.

However, domestic lenders in developing countries have limited experience of lending to WASH service providers. Lenders typically deny credit to local WASH initiatives because the projects and/ or service providers are unable to generate sufficient revenues to cover the costs of borrowing. When they do offer finance, it is often on terms that are incompatible with service provider realities: short term loans at high interest rates requiring extensive collateral. Moreover, transaction costs are high and not affordable to the majority of the borrowers, due to complex transactions associated with lenders' risk mitigation.

To encourage commercial lending, the development community has started promoting financing mechanisms that blend commercial finance with grants or guarantee debt service payments, allowing for lower interest rates and longer tenors[8]. The rationale behind blended finance is to make water and sanitation investments more commercially viable for investors. However, the few isolated experiences with blended finance in the water sector to date, supported by international donors, have mostly

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[7] Presentation at 2018 Stockholm World Water Week.
[8] See Glossary.

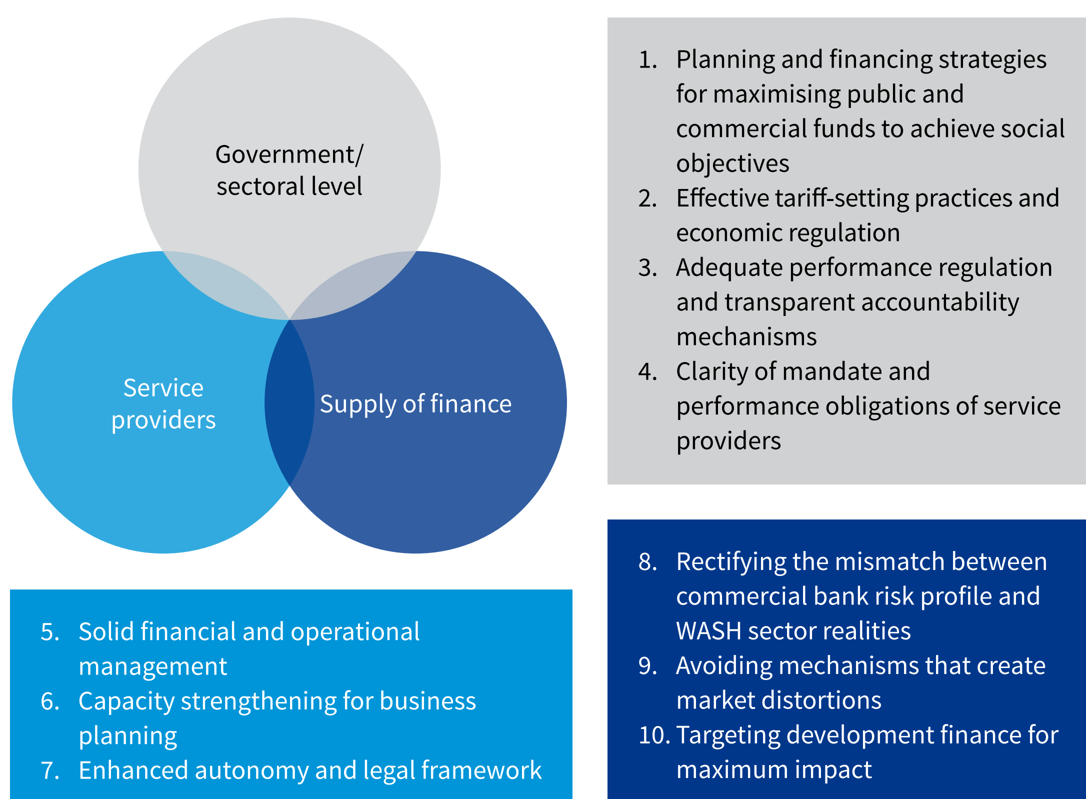
been in middle-income countries and have so far failed to be replicated at scale (Leigland et al., 2016). Moving to scale requires greater focus on the broader foundational issues facing the sector that feed the commercial sector's reluctance to invest.

Blended finance approaches will have greater impact if they are applied strategically as part of a broader package of holistic reforms to improve sector efficiency and governance and to increase sector funding sources on a sustainable basis, laying a solid foundation for sufficient WASH service revenues to be mobilised to repay commercial financing over time. Sequence matters: When the foundational conditions are in place, different blended finance strategies can be used to help mobilise commercial financing, depending on local financial market conditions (Leigland et al., 2016). This, in turn, could be combined with public financing to subsidise or fund access to the least commercially viable areas/projects and increase access to the poorest while commercial finance can be used to finance "easier" urban revenue generating investments[9].

## 1.3 FOUNDATIONAL ISSUES FOR MOBILISING FINANCE FOR WASH

The authors address 10 of the foundational issues that need to be considered to help attract more finance into the sector. Each of these issues is explored in detail in the next three sections of the paper (Figure 1). The ten items can serve as a useful checklist for stakeholders who are working on the ground at the intersection of finance and water and sanitation.

**Figure 1:** Foundational issues for mobilising finance for WASH




[9] For a holistic approach, a comprehensive set of policy, institutional and regulatory (PIR) interventions are needed, as described in Aligning Institutions and Incentives for Sustainable Water and Sanitation Services (Mumssen et al., 2018a).

# Section 2.
# Foundational issues at the government / sectoral level

The WASH sector in developing countries has historically not been attractive to commercial lenders. While governments and donors may support poor-performing, weak service providers, commercial lenders cannot afford that luxury – their business model is predicated on loans being serviced and repaid. They are cautious about lending to borrowers that are not credit-worthy, which is the status of many WASH service providers in developing countries, regardless of whether they are large or small, and whether they serve urban or rural populations.

That reluctance is compounded if at the sector level there is limited planning and regulation, transparency and accountability, and few perceived avenues for recourse should an investment default. Strengthening these sectoral foundations should help build the confidence of commercial investors, and governments and donors should explore what can be done or with whom they can partner to mitigate these foundational issues to enhance interest in participation as well as the long-term sustainability of investments.

This section discusses the following issues for national WASH sectors:

- Sector planning, financing strategies and tariff setting:
  - Sector planning and financing strategies and a system for maximising funds to achieve social objectives;
  - Effective tariff-setting practices and economic regulation.
- Adequate performance regulation, accountability mechanisms and clarity of mandate:
  - Adequate performance regulation and accountability mechanisms;
  - Clarity of mandate and performance obligations of service providers.

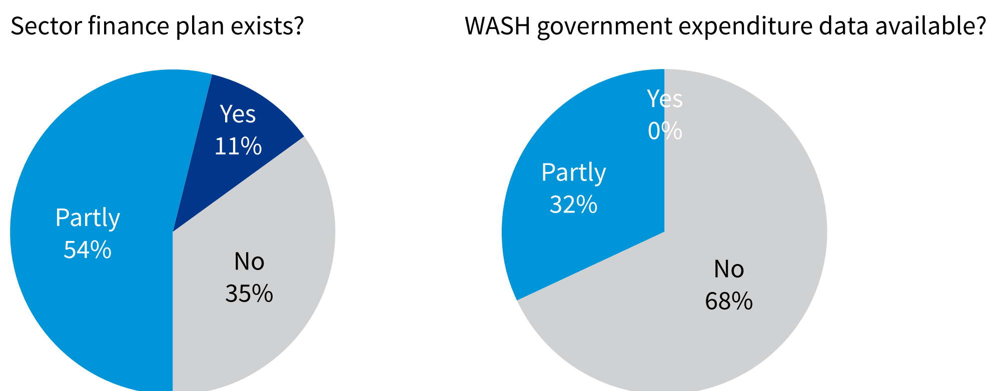
## 2.1 EFFECTIVE SECTOR PLANNING, FINANCING STRATEGIES AND TARIFF SETTING

- Need for sector planning and financing strategies that allocate commercial funds and public funds to best maximise national objectives, including social commitments
- Need for effective tariff-setting practices and economic regulation

**NEED FOR SECTOR PLANNING AND FINANCING STRATEGIES FOR MAXIMISING FUNDS TO ACHIEVE SOCIAL OBJECTIVES**

Data about national WASH sector budgets is notoriously hard to extract, as illustrated by Table 1, which draws on an assessment of 37 countries conducted by Sanitation and Water for All (SWA) in 2017. In many cases this is because expenditure is spread between various government ministries (such as health, agriculture, rural development, urban planning, etc.) to the point that governments themselves are hard-pressed to extract all the composite information.

**Figure 2:** WASH sector finance plans and expenditure data availability




Source: SWA 2017

The lack of a unified plan indicates the lack of a strategy, which prevents progress from being monitored and managed. At present, very few countries have WASH sector finance plans, government expenditure reports or other accountability instruments that provide accurate assessments on how finance is being used in the sector. Sector finance plans are critical to establish comprehensive strategies for governments, setting priorities, goals and targets at the national level, prioritising investments and funding sources (whether through tariffs, taxes or transfers) and determining how public and commercial funds can be maximised to meet all national objectives. While every government has made national commitments for SDG 6, they have not necessarily developed plans for achieving and financing these commitments.

A comprehensive financing strategy that utilises public finance (national and sub-national), private finance (debt, management contracts and PPPs) and tariffs is essential for a healthy, sustainable foundation. Where public policies require that tariffs be low, these strategies need to build in more public finance to compensate for the lost revenue.

Limited public funding for WASH continues to be used on urban projects or to de-risk private finance as part of large projects that are of little benefit to the poor, such as water supply or sewerage networks in the wealthier areas of cities. One WASH finance expert recalls[10], "When subsidies from the European Commission started flowing to Southern Europe, the regions that benefitted the most from grant money were the urban areas and the larger utilities because they had projects prepared. Fully subsidised capex went to Lisbon and Madrid. That was very unfair for the unserved in the rural areas". While political realities will probably never eliminate this practice, financing plans give governments the tools to identify investments and how to finance them, ideally prioritising public funds to schemes that are less attractive for private investment and/or which serve marginalised populations.

**SELECTING THE BEST TYPE OF FINANCE: THE WORLD BANK'S MAXIMIZING FINANCE FOR DEVELOPMENT**

In 2016, The World Bank embarked on an effort to help countries maximise finance for development, and to do so responsibly without pushing the public sector into unsustainable levels of debt and contingent liabilities. The Maximizing Finance for Development (MFD) approach entails pursuing private sector solutions where they can help achieve development goals and reserving scarce public finance for where it is most needed. Whenever a project is presented for financing, The World Bank applies the MFD "cascade" approach to consider a spectrum of solutions, private as well as public, and works to help clients tap a

[10] 2018 Stockholm World Water Week discussion.

variety of financing opportunities, incorporate global lessons and good practices, and address equity and affordability for consumers. The World Bank is encouraging governments, donors and other international finance institutions to follow this approach.

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Governments can also look to incentivise performance through performance-based grants. An example of this is the newly developed National Urban Water Program (NUWAS) in Indonesia, where the government, with The World Bank assistance, has developed an incentive-based framework for urban water supply. The NUWAS framework requires local governments and their water utilities (PDAMs) to agree on a performance target to receive funding from central government. The framework is also designed to create incentives for local governments and PDAMs to continuously improve their performance by accessing further funding or technical assistance (TA) from the program (Mumssen et al., 2018a).

Sector level planning is also crucial to ensure that public funds are effectively directed to the more difficult sub-sectors.

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**SANITATION AS A NATIONAL PRIORITY: INDIA**

A powerful example of what can be achieved when political will is fully activated is demonstrated by India, where the national sanitation campaign, Swachh Bharat Abhiyan, includes a specific timeline (October 2015 through October 2019) for achieving total eradication of open defecation and a dedicated budget that is carefully administered via two different ministries with dedicated staff at all levels of implementation: the Ministry of Drinking Water and Sanitation for the rural workstream and the Ministry of Urban Development for the urban. State-level targets are closely monitored and widely reported via a vibrant, multifaceted social media campaign that also features popular movie stars, athletes and the Prime Minister, Narendra Modi. These efforts are having an impact: in 2014, Indians formed 60 percent of the global population who defecated in the open; the country's current share is estimated at 20 percent, according to Indian government officials (The Hindu, September 2018).

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A coordinated sector strategy would help governments focus on how to finance their goals with a tariff policy focused on cost recovery, allowing public funds and subsidies to be reserved for the less attractive investments – typically sanitation, rural water supply, and water supply to more marginalised or remote urban areas – while gradually decreasing subsidies for mainstream urban water supply which is more appealing for commercial investment.

### NEED FOR EFFECTIVE TARIFF-SETTING PRACTICES AND ECONOMIC REGULATION

Revenues from tariffs are the most certain source of financing for WASH providers. In both emerging and developed markets, tariffs are often set well below what is needed to recover basic operational and maintenance costs (Leigland et al., 2016). Limiting the most direct source of revenue creates a cycle of sector inefficiency that leads to neglect of assets, lack of asset and business planning, and perpetuates dependency on aid. When tariff revenues are insufficient for covering operational costs, commercial lenders will be reluctant to provide loans to the sector as they need to ensure that there is a sufficient and constant operating surplus to service the debt over the maturity period.

An effective regulatory environment for the WASH sector is essential to ensure the delivery of affordable, high-quality and sustainable services to citizens. Because WASH services constitute a natural monopoly, service providers may overcharge or provide poor quality services. Economic regulation of WASH services was initially introduced in developed countries to oversee private service providers, whether under license (England and Wales) or through contract (France) and is intended to limit service providers from potentially abusing that monopolistic power.

Publicly owned service providers have traditionally not been regulated to the same extent as private ones on the assumption that government control could strike the right balance between cost recovery, affordable tariffs and acceptable levels of service. In the last two decades, however, regulation of public utilities has been growing in response to the deteriorating quality of WASH service delivery. This approach has led to several benefits, notably de-politicising tariff setting and providing independent oversight. Countries as different as Portugal, Australia, Peru, and Colombia are using regulation as part of the mix of policy instruments that ensure that public utilities offer improved value and quality services to the public (Mumssen et al., 2018a).

Thought should be given to which entity is responsible for recommending and setting tariffs. Where rates are set by parliament or a local political entity, decisions are more likely to be politicised. This contributes to the lenders' perception of the sector as high-risk due to its vulnerability to political mismanagement. Some objectivity and consistency can be introduced by shifting the responsibility for tariff-setting or approval to a provincial or central regulatory body. An independent local- or national- level regulator can help to manage this risk, but it has proved challenging to give regulators in developing countries both sufficient autonomy to be truly independent and to give them sufficient resources to operate effectively. Thus, the optimal solution will depend on local circumstances.

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**REGULATORY FRAMEWORK AND DECENTRALISED TARIFF-SETTING: KENYA**

An example of the autonomy challenge is Kenya, where tariffs are reviewed by WASREB – the national regulator – and there is a clear tariff-setting process as well as methodology set out in guidelines that follow the enabling legislation (WASREB Tariff Guidelines). Despite this strong structure, however, the Constitution of Kenya requires final decisions on tariffs to be at county[11] level. This means that while the regulator recommends tariff rates, the relevant local authority determines the tariff. A Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) study (2018) observed that several Kenyan utilities have struggled to maintain their tariff levels in the face of political pressures. Even though the regulator supported tariff increases, political considerations often trumped technical financial considerations. In many cases, utilities in Kenya did not apply for a tariff increase even though the regulator encouraged and requested them to do so, suggesting that political considerations were at play (Eberhard, 2018). There are also cases in Kenya where tariffs were approved in line with the regulator's recommendations and supported improvements led to commercial finance being raised (see 2.2), with the support of donor collaboration.

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Many experts draw a strong connection between high technical performance and the absence of political interference and corruption. Burkina Faso is one example where the political will of the government and the autonomy granted to the national urban water utility, ONEA, in carrying out its mandate has been a determining factor of ONEA´s success (Eberhard 2018). Three-year performance contracts were established between the government and ONEA in 1993, with oversight of those contracts strengthened in 2008 through a multi-stakeholder committee.

Governments should establish a clear framework and methodology for tariff-setting and review, with an emphasis on cost recovery. While it may not be realistic to depoliticise the process of pricing a public good, as this is typically seen as the domain of government. The process for tariff-setting should be objective as possible and clearly outlined to provide consistency and ensure that tariffs have some correlation with costs and their increase over time. The methodology can also be used to support policy objectives by incorporating incentives for efficiency and good performance of service providers and cross-

[11] Roughly the equivalent to a U.S. state.

subsidising lower income areas with revenues from higher income users[12]. The regulator can then monitor performance of the service provider (as discussed in 2.2) and implement the efficiency incentives.

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**INDEXING TARIFF SYSTEM TO INFLATION: UGANDA**

One way to ensure that revenues of a service provider do not fall behind inflation is to index-link the tariff. National Water and Sewerage Corporation (NWSC) in Uganda was able to negotiate an indexation of the tariff with its parent ministry. This meant that the tariff would increase automatically in line with inflation and other agreed core cost drivers. The result of this indexation was that NWSC did not have to apply for a tariff increase or adjustment for many years and it was still able to sustain positive operating cash flows over a long period of time (Eberhard 2018).

When setting tariff policy, affordability of the tariffs and willingness to pay should be considered. In some cases, higher tariffs may be justified for different customer groupings, such as industry or commercial premises. Popular tariff structures such as increasing block tariffs (ICTs), in which higher tariff rates are charged once consumption increases above a threshold level (i.e., block), allow for cross-subsidisation. However, these structures often do not include mechanisms for restricting access to the lowest tariff block to qualifying low-income users, meaning that subsidies are thus utilised by all instead of only those who need them – an inefficient use of scarce financial resources.

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Clustered or merged service providers covering larger areas wider that the administrative boundaries, e.g. municipalities and rural villages, could also create conditions to facilitate support to least viable areas by providing conditions for cross-subsidisation of the overall served population by the same utility.

## 2.2 ADEQUATE PERFORMANCE REGULATION, ACCOUNTABILITY MECHANISMS AND CLARITY OF MANDATE

- The need for adequate performance regulation via accountability and transparency mechanisms
- Improving clarity of mandate and performance obligations of service providers

### THE NEED FOR ADEQUATE PERFORMANCE REGULATION VIA ACCOUNTABILITY AND TRANSPARENCY MECHANISMS

For banks and investors, performance and accountability of water service providers in developing countries are too often still an unknown. The foundation of a healthy investment climate includes stronger sector regulation, with well-documented standards and targets for performance; clear lines of accountability; and incentives as well as penalties for performance. Credit ratings[13] or an acceptable substitute are another critical component of an investment-ready landscape.

At face value, the water sector should have built-in advantages in terms of performance indicators, global standards and monitoring. The International Benchmarking Network for Water and Sanitation Utilities (IBNET) is the world's largest database for water and sanitation utilities performance data. IBNET supports and promotes good benchmarking practice among water and sanitation services by providing guidance on indicators and definitions; facilitating the establishment of national or regional benchmarking schemes; and undertaking peer group performance comparisons. It includes performance data and benchmarks from more than 200 countries. These performance standards can immediately help service providers compare themselves across a global spectrum of peers.

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[12] For further discussion on regulatory options see Mumssen et al., 2018b.

[13] See Glossary.

Financial and budgetary monitoring mechanisms at central and service provider levels are less uniform, and these systems are critical for governments to understand achievements and hold relevant authorities accountable – especially those that are more social in nature and are not built into standard benchmarking indicators. Accountability mechanisms in the sector include joint sector reviews and parliamentary reviews at central level. Ministries and regulatory agencies also carry out monitoring and benchmarking, but in many countries limited resources are made available to ensure effective monitoring and performance of service providers remains largely self-reported. Oversight of rural WASH providers is even less common. This is partly because of the practical challenges of overseeing remote service providers, and the attendant cost, although such challenges can increasingly be addressed with mobile technology.

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**REGULATORY OVERSIGHT OF RURAL WATER PROVIDERS: COLOMBIA AND HONDURAS**

Strong regulatory oversight has typically been less common for rural water providers. Even in Latin America, which has a strong history of independent regulators, the number of rural providers that is effectively regulated is small. In Colombia, there is a regulator that is responsible for oversight of service providers. However, there are an estimated 11,000 Community Based Organisations (CBOs) acting as service providers in rural areas. Out of those, only 1,400 have registered with the regulator, and even fewer regularly report to the regulator. In addition, there are 700 small providers (serving less than 2,500 connections) that are not classified as CBOs. These small providers primarily focus on the main town or smaller municipalities, possibly with a few surrounding rural settlements, and only a small percentage of these regularly report to the regulator.

In Honduras, the regulatory functions are partly delegated to municipalities. At the municipal level, a local control and supervision unit (USCL) is supposed to monitor performance of service providers (whether urban or rural/community-based). Currently, these USCL are effectively functioning well in the larger urban areas that have an urban service provider, but with much less consistency in smaller municipalities, where these systems are often not there or not effective. As a result, regulatory oversight in rural areas is limited.

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Few developing countries have yet developed credit rating systems that could provide potential investors with a base for determining if a WASH investment is credit-worthy. The establishment of shadow credit ratings[14] in lieu of official ones can be an interim measure that addresses this foundational shortcoming and provides a mechanism to assess utility credit-worthiness. In Latin America, the Inter-American Development Bank (IDB) and the International Water Association (IWA) co-developed AquaRating, a system based on an international standard for the evaluation and improvement of water and sanitation utilities. While not explicitly designed to be a shadow credit ratings system, it measures technical performance as well as financial, environmental, operational performance and corporate governance, and is being used by some actors to measure the performance of water utilities before extending a loan. These actors include the Millennium Challenge Corporation (via IWA) in Africa and Asia, as well as the Asian Development Bank in several countries, including the primary water utility in Fiji[15]. Today, more than 60 water and sanitation companies across the world use AquaRating to improve their performance and efficiency in water resource management (IWA, 2019).

The level of integrity in a government and a sector is also important for investors to give them comfort that their investments will be used for the designated purposes. Accountability benchmarking and credit ratings can provide such assurances.

[14] See Glossary.

[15] Personal communication, Inter-American Development Bank, February 26, 2019

### STRONG ACCOUNTABILITY AND REPORTING MECHANISMS: KENYA

Kenyan regulator WASREB collaborated with The World Bank to develop a mechanism to assess utility creditworthiness. In 2011, shadow credit ratings for 43 Kenyan utilities were published, which gave borrowers and lenders an objective overview of creditworthiness and risk. Thirteen utilities were given investment-grade ratings and another 16 utilities were rated 'near-investment'. Together with WASREB's IMPACT report, which documents the performance of Kenya's water services sector, the ratings provided utilities with a diagnostic tool with which to identify areas for improvement. Recent technical assistance supports capacity building at sector institutions to increase the commercial viability of the sector. This has included creditworthiness training for service providers, preparing shadow credit-ratings and results-based lending with support from the regulator and an analysis of existing debt from Water Service Boards that is now being transferred to the Water service Providers. It helps service providers interested in commercial borrowing by providing a toolkit to strengthen financial management, project modelling, and business plan writing (Advani 2016).

### IMPROVING CLARITY OF MANDATE AND PERFORMANCE OBLIGATIONS OF SERVICE PROVIDERS

Service providers, public or private, will naturally focus on the most accessible and well-off parts of the service area, where operational costs are low and revenue recovery is perceived to be high – therefore making profitability appear more likely.

### WATER COMPANIES "CHERRY PICKING" THEIR CUSTOMERS: VIETNAM

An example of the natural tendency of service providers to serve wealthy areas can be seen in Vietnam, where the provincial water service companies (PWSCs) have historically been owned by the Provincial People's Committees (PPCs), which also set tariffs and oversee service delivery. There are no performance agreements between the PPCs and the PWSCs setting out performance indicators or access targets, so there are limited incentives for the PWSCs to expand access within their official service areas, particularly to poorer areas. Not surprisingly, PWSCs typically focus on the more densely populated and accessible parts of their service area. These issues may be exacerbated as the PWSCs undergo the process of being equitised under government policy (i.e. divesting part of the shares to private ownership) – the connection with the PPC diminishes, meaning that the focus on densely populated and accessible areas is likely to increase unless performance agreements are put in place that mandate serving harder to reach areas. Monitoring of the PWSCs is also limited. The government is currently reviewing how to strengthen service delivery and financial sustainability of service providers to improve the outcomes of the equitisation process (World Bank 2014).

To ensure that rural and urban WASH service providers serve all their communities and not just the most convenient and/or wealthy parts of their service areas, there needs to be a clear long-term mandate (included in concession contracts where applicable). Performance indicators need to be clearly specified and monitored, with incentives and penalties that encourage delivering services and expanding access to those who are harder to reach.

### REFORMS FOR LONG-TERM LICENSES AND MONITORING SERVICE PROVIDERS IN CAMBODIA

In Cambodia, private service providers operated under three-year licenses with limited performance indicators. They were unable to raise commercial finance on suitable terms due to the short duration of their mandates and were not incentivised to expand their systems to increase access. In 2014, the Government of Cambodia introduced longer-term licenses that are coupled with specific targets for performance and access (World Bank 2016). It is expected that this reform will unlock opportunities for service providers to access commercial finance on better terms so that they can fulfil their commitments to increased access and better service provision while ensuring better accountability and service performance.

# Section 3.
# Foundational issues at the service provider level

To improve or extend service coverage, WASH service providers are increasingly needing to secure finance beyond government or donor grants. This is new territory for the majority of providers who are used to relying heavily on government funds, often in the form of grants, and focusing on building and maintaining assets rather than building their businesses and customer bases to generate revenues and repay loans. This puts them at a disadvantage when applying for other sources of finance. As noted in section 1, commercial lenders will lend money only to credit-worthy borrowers that are able to service their debts and have a good performance track record.

This section draws on the rich body of research on the foundational issues necessary to unblock service provider access to finance to highlight those which are the most critical and where interested stakeholders should direct their efforts:

- Improved financial and operational management, business planning and client acquisition:
  - The need for solid financial and operational management;
  - Capacity strengthening for business planning.
- Enhanced autonomy and legal framework.

## 3.1 SOLID FINANCIAL MANAGEMENT AND BUSINESS PLANNING (PROJECT PREPARATION)

- The need for solid financial and operational management
- Capacity strengthening for business planning

**IMPROVED FINANCIAL AND OPERATIONAL MANAGEMENT**

Service providers can only attract commercial finance if they can demonstrate that their finances and operational performance are in good shape. As noted in 2.1, part of this proof will be that they can show that their revenues and tariffs are sufficient to cover the costs of operations. It will also be important to show a track record of financing management and transparency. This can be achieved through requiring audited and published financial accounts and feeding into available credit rating systems (see discussion in Section 2.2).

They will also need to demonstrate operational efficiency and good performance, which will be mainly demonstrated through mechanisms for tracking and monitoring operational performance; benchmarking performance against that of other service providers such as IBNET (as discussed in section 2.2); improving operating efficiency and instituting incentives as well as penalties for performance. These are initiatives that a regulator can support, especially where operations are decentralised to the regional or local level.

For service providers that have low levels of efficiency, there is extensive guidance and examples on how to improve this. The World Bank recently produced the Utility Turnaround Framework 2018, which provides practical guidance on how to improve efficiency, with initiatives for non-revenue water (NRW) reduction, energy efficiency, business and asset planning, and financial planning. Some improvements can be achieved quickly, while achieving and maintaining overall efficiency can take time and efforts for improvements need to be sustained.

**BENEFITS OF GOOD GOVERNANCE: UGANDA UTILITY TURNAROUND**

The need for patience in order to turn utilities around and attract commercial finance can be demonstrated by the experience of the Ugandan utility responsible for urban water delivery, National Water and Sewerage Company (NWSC). The utility was losing money and performing poorly, even after years of intensive investment. A new manager was appointed in 1999 who introduced accountability and performance metrics for company officers and set an operation plan for a 100-day turnaround programme, with performance targets and a monitoring mechanism. Performance improved dramatically, and further reforms were implemented after the programme. While some improvements were achieved in a very short space of time, it took far longer for the utility to achieve a satisfactory credit rating and be comfortable about seeking commercial finance. As of January 2019, 20 years after the initial 100-day turnaround plan, NWSC has just sought domestic currency loans from the national banks (approx. $15 million) and is awaiting Ministry of Finance approval. Proceeds of the loan will be used to expand water service coverage nationally, scale up sewerage works, and support household connections[16]. This example illustrates the importance of utility governance and leadership in the short-term as well as over time, coupled with political and government support.

**CAPACITY STRENGTHENING FOR BUSINESS PLANNING**

A business plan helps a business identify short- and medium-term objectives and an action plan for achieving those objectives. For WASH service providers, a business plan typically: specifies the baseline for performance using key performance indicators and an end line (e.g. where the service provider wants to be in five years); describes the activities that will take it there (either structural or non-structural); and provides corresponding costs and financing mechanisms. To ensure they prepare to meet the SDGs, the business plans should also set out how they will serve the underserved parts of their service areas and how this will be costed. The plan then need to articulate a strategy for connecting those new households.

**STRENGTHENING INSTITUTIONS IN ARGENTINA**

The Government of Argentina has set new policy directions, not only to increase access, but also to strengthen the institutional framework and to improve the sustainability of service provision. This focus on institutional strengthening, reflected in its National Water Plan, is ambitious. Under the Belgrano Program, The World Bank is supporting utilities in 10 of the poorest provinces in Argentina to develop business plans, using a participatory approach and engaging key staff in the planning exercise. These plans are prepared by the service provider and then require approval from the key public stakeholders: the provincial regulator, the province and the National Directorate for Water Supply and Sanitation. This is creating a “new Compact” in the Argentinian water sector, as these different stakeholders are agreeing on targets and means to reach them for the first time (Alvarez, 2019).

Building the capacity of WASH service providers to operate like a business is also a challenge. In the offices of public WASH service providers, staff consist primarily of engineers and other technical workers who focus on keeping the systems functioning. Financial planning and business skillsets are often less emphasised, as those functions have traditionally been managed more centrally or simply were not needed. To connect new customers and service areas to piped systems, service providers need to demonstrate that the service they offer is superior to their current source in terms of quality as well as reliability and is worth the extra cost. This requires strategic planning and behaving like a salesperson – a skillset that public service providers have not traditionally focused on.

[16] Global Water Intelligence Volume 20, 17 January 2019).

IBNET itself acknowledges that "The amount people are prepared to pay for water is the biggest obstacle to achieving the Sustainable Development Goals for water and sanitation" (IBNET Tariffs Dashboard, 2019). Luckily, some inroads are being made in assisting smaller operators to hone these skillsets (see Narra Water below).

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**IMPROVING CUSTOMER ACQUISITION INCREASES CASH FLOW: NARRA WATER, PHILIPPINES**

In 2015, Narra Water Supply System, a municipal water utility in the Philippines, took a 20-year loan from the Municipal Development Fund Office (MDFO) of the Philippines Department of Finance to extend services to cover all 23 villages within the municipality, a significant expansion beyond the three villages that were being served at the time. Construction of new facilities began immediately, but active recruitment of new paying customers for the services was not prioritised.

Narra Water management realised that rapid client acquisition was needed to generate the revenues required for meeting the installment payments on the loan and received technical assistance (TA) from Water.org in September 2017. The first focus was improving customer acquisition: mapping the community to understand where new potential clients were located and developing outreach strategies for these prospective customers. TA was also provided on financial management. They calculated that a monthly revenue of one million Philippine Pesos (approximately USD 18,460) per month was required while they were still in the grace period of the loan, and that this revenue could be achieved only when 4,300 households were connected and paying water tariffs to the Narra Water Supply System.

After one year of collaboration with Water.org, 1,500 new households were connected to the system, bringing the utility much closer to the 4,300 households needed to cover operating expenses and make interest payments against its loan. This also positions Narra Water to reach the 6,000 client households that will ensure timely payment of principal and interest due by 2020.

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Strong financial management and client connection plans are critical foundations for a WASH service provider to operate with self-sufficiency. Business planning, asset management planning, and determining optimal cashflows all feed into these plans and serve as the components for a strong project preparation plan that is provided to a commercial investor.

Strong project preparation is particularly critical for successful WASH applications for commercial finance, since water infrastructure assets are difficult to use as collateral for loans because assets used by water utilities are often owned by the government (and therefore not legally available as collateral) (Bender 2017). Experts express this sentiment by noting the scarcity of bankable projects[17]. Leigland et al. observe (2016) "At present, there is more money available than there are viable projects attractive for commercial finance". This is the main reason why so many donors and governments are supporting project preparation[18] to build a pipeline of viable commercial investments.

Efforts to build the internal capacity of WASH service providers should be strengthened and scaled. Capacity strengthening and specific TA can be tailor-made for different contexts (from less formal district providers to more urban and formalised utilities). Examples where this support is being implemented with success are highlighted below.

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[17] See Glossary.

[18] A sample standard Terms of Reference for project preparation is available at Project Preparation Committee, 2005.

**ATTRACTING COMMERCIAL FINANCE TO EXPAND SERVICES INTO POORER AREAS: A DISTRICT WATER SUPPLY COMPANY IN INDONESIA**

Batang District Water Supply Company, located in Central Java, Indonesia, is an Indonesian Regional Water Supply Company (PDAM). The company partnered with Water.org in September 2016 to grow the number of low-income clients it served.

One component of achieving that goal was client-facing: not only offering a wider range of financing options that catered to the needs of this market segment, but also advertising these financing options to potential clients. The PDAM was already offering some financial services to its clients but sought Water.org's TA to increase its efficiency and advertise its availability. Additional TA on market analysis and demand generation was also provided.

The second component of serving more low-income clients required expanding pipelines and services to more areas where this population lived. That expansion required additional funds. Water.org provided TA to develop Standard Operating Procedures (SOPs) for financial service offerings, financial recordkeeping and reporting, and human resources recruitment. Having these SOPs in place positioned the PDAM as more attractive to investors when applying for the credit they needed to expand, and in 2018 the PDAM secured approximately USD $51,552 in grant funding from the Indonesian government to extend their pipeline, enabling them to serve an additional 5,000 households. In this context, successful application for public funds represents a step forward in the process to receiving commercial investment.
As of August 2018, 4,968 new households were connected to the Batang District water supply system, and the PDAM increased the number of clients using internal financing from 70 per month to 248.

**SUPPORTING UTILITIES ACCESSING COMMERCIAL FINANCE: WATERNET IN MALI**

Waternet, the public water company of Amsterdam, is currently supporting SOMAGEP-SA, one of Mali's public water supply companies, to attract larger investments. SOMAGEP-SA is responsible for the drinking water supply in 17 major urban areas throughout the country and faces significant challenges in delivering high-quality water to its customers.

Waternet provides capacity-building assistance (funded via grant money from the Netherlands government) to improve utility performance enhancement. This is then followed by small loans from the Dutch Development Bank (FMO), which are aimed at improving energy efficiency and reducing non-revenue water. The aim is for the utilities to have the required performance and track record to attract larger concessional and commercial finance. (Steven van Rossum, Waternet and Pritha Hariram, FMO 2018)

[19] See Glossary.

[20] See Glossary.

**SUPPORT TO DEVELOP A PIPELINE OF PROJECTS: THE WORLD BANK AND K-REP BANK**

In 2007, The World Bank launched a pilot programme with Kenyan microfinance institution K-Rep Bank to help rural and peri-urban communities access loan financing for improving and expanding small piped-water systems. TA was provided to develop bankable loan applications and supervise project implementation. This pilot was scaled up, and $21 million of results-based grants have been provided to help water service providers obtain commercial funds for delivering water services to low-income areas. These projects have provided water access to over 300,000 people, with another 200,000 expected to benefit by the time the last project closes in December 2019. As of 2018, approximately 50 transactions were completed, raising more than $25 million in private capital. The experience demonstrates an emerging project pipeline and growing appetite among utilities for blended financing to bridge the investment gap. Utilities are gaining experience in executing commercially bankable projects, and there is growing interest among local banks to lend to the water sector, with four banks now actively participating, and others looking to enter the market. The U.S. Agency for International Development's (USAID's) Development Credit Authority supported many of these loans through credit guarantees[19] that provided partial risk cover to domestic lenders. These efforts directly complement the Netherlands-funded Kenya Pooled Water Fund, which is planning to pool together assets to issue larger, risk-diversified private bonds[20] (World Bank, 2018).

These case studies highlight the essential nature of operations and marketing – improved customer targeting, better financial and administrative management, and capital finance plan creation – to enable a WASH service provider to secure finance, be it public or commercial. Any investment requires confidence in the receiving entity's ability to manage its funds and transform them into positive outputs, whether it is the extension of services to low-income groups (a more social or government priority) or efficient cost recovery to ensure financial sustainability (a more commercial or private investor priority).

The examples also help set expectations about the speed of institutional change: helping WASH service providers access commercial finance may often require a phased approach to ensure that the target institution is ready to manage commercial or blended solutions and their associated levels of complexity.

## 3.2 ENHANCED AUTONOMY AND LEGAL FRAMEWORK

Many urban WASH service providers are departments of municipalities, with no financial autonomy. Often these departments do not have clarity on their cost base, revenues, nor how much funding they will be allocated. They typically do not have their own business functions but rely on those of the municipality for services such as accounting, human resources, vehicles. Electricity costs, which typically make up a large component of costs for WASH service provision, are often not passed onto the department, rendering efficiency audits and incentives difficult. The mandate of such a department is often vague, and performance indicators are often absent.

Commercial lenders will generally find it difficult to lend to the WASH provider rather than the municipality as it is not a separate legal entity, even if they may in some circumstances be able to support specific ring-fenced projects. In such circumstances, governments looking to secure commercial finance for their WASH providers should consider ring-fencing the activities of the WASH provider by corporatising the department into a separate legal entity or outsourcing a set of activities through a contract to a third party.

Service providers might also consider adopting an autonomous structure that allows for greater flexibility in rewarding staff for good performance, such as limited company or corporation structures, rather than public entities which are typically constrained by civil service pay scales and may not allow for performance-based incentives to staff. This can have a significant impact on the ability of the service provider to reward and retain good staff.

Rural WASH providers are often small and informal. Their mandate is unclear, as they may have been given a basic license to run a business which is not tailored for water supply, as was the initial licensing regime in Cambodia discussed in Section 2.2. Similarly, in rural Vietnam, WASH providers are developed and operated as privately financed schemes that were initially conceived as business development proposals by private sector actors and then approved by the provincial authority as an “investment decision,” often with no clear specifications on service areas, performance requirements or access targets. In other countries, service provision of rural schemes is carried out by loosely formed local communities which may not have a separate legal identity nor be able to enter into contracts or raise finance. In most instances, such WASH providers have limited capacity and there is little monitoring of performance.

Governments should consider how to formalise these arrangements and create clearer mandates and performance requirements, as was done in Cambodia (see Section 2.2). They could also consider achieving economies of scale that might increase professional capacity and bankability of the service providers through clustering schemes, as in the case of Benin below.

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**RURAL CLUSTERED PRIVATE CONCESSIONS IN BENIN**

In 2010, The World Bank initiated a project to help improve water supply and distribution services in rural and small towns of Benin. Ten pilot schemes covering a total of 41,000 people were grouped into four clusters, each of which was tendered as a separate PPP transaction.

Private operators bid for the eight-year concession agreements for the design, partial financing, rehabilitation, extension and operation of the schemes. The bidding process led to the selection of three winning local bidders for the four clusters. The four concession agreements were signed in August and September 2014. Following the successful pilot, rural clustered concessions are now being scaled up with a follow-on World Bank project, which is helping to design and prioritise the projects and providing support to blended finance instruments to help the bidders get commercial domestic finance on affordable terms. (Benin IFC – WSP)

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# Section 4.
# Foundational issues related to supply of finance

Traditional suppliers of finance to the WASH sector in developing countries, mainly for capital expenditure, include development banks, bilateral and multilateral agencies, NGOs and governments through budget allocations. The goal is to maximise the impact of those traditional sources and to crowd in new potential sources, such as commercial banks, pension funds, and impact investors[21].

Integrating two disparate types of investor, broadly categorised for these purposes as public and private, has so far proven challenging in many developing countries. Available data from The World Bank Private Participation in Infrastructure (PPI) database suggests that private WASH investments in Least Developed Countries (LDCs) are limited to a handful of large-scale infrastructure investments. Domestic private finance is not always available in many emerging markets and, where it is available, it is usually limited to microfinance.

As discussed in previous sections, the WASH sector in many developing countries is not yet attractive to private sector investment, and this paper has highlighted areas where the sector can be strengthened at government/sector and service provider levels to make it more attractive. Traditional suppliers of finance to the WASH sector therefore need to coordinate to support these initiatives and innovate to help attract new sources of finance into the sector.

USAID's Water, Sanitation and Hygiene Finance (WASH-FIN) programme has sought to do this through a collaboration with national governments, development partners, service providers, local financial institutions and other stakeholders to close financing gaps and improve governance structures that enable targeted countries to access reliable sources of capital for sustainable, climate resilient water and sanitation infrastructure. Two years of operating this programme across seven countries to date has led the team to conclude[22]:

- Market finance is abundant and available - provided its risk-versus-reward terms are met - and is needed to close the infrastructure financing gap for services.
- There is no shortage of finance globally; there are excess funds available for investment through both simple and sophisticated private financial systems and instruments.

In order to realise an uptake in commercial investment in the water sector, investors need assurances that the sector and service providers are not too risky and that their investment will be paid back and yield returns. This section considers the following issues:

- Rectifying the mismatch between commercial bank risk profile and sector realities;
- Avoiding mechanisms that create market distortions;
- Targeting concessional and grant funding for maximum impact.

## 4.1 RECTIFYING THE MISMATCH BETWEEN COMMERCIAL BANK RISK PROFILE AND WASH SECTOR REALITIES

Commercial lenders, as a rule, seek to minimise risk while maximising returns. As noted above, the WASH sector in developing countries is often less attractive because of foundational issues.

[21] See Glossary.

[22] Ella Lazarte, Senior Water and Sanitation Advisor USAID. Personal communication, February 8, 2019.

The reluctance of a commercial bank to invest in the WASH sector may go beyond a specific bank's perception of sector risk. In some countries, commercial banks are not allowed (e.g., Ethiopia) or or are limited in how much they can, provide loans at the sub-national level.

This section discusses:

- Acceptable collateral
- Loan tenor, size and complexity

**COLLATERAL**

As identified in Section 3, domestic commercial banks in developing countries are less familiar with lending to water utilities.

It may be also be difficult for lenders to take collateral over WASH assets - in some countries this is illegal. Even if they can do this legally, they would be constrained from enforcing the collateral and selling those assets as many are underground and would be hard to unearth and resell. Moreover, while water's designation as a "human right" is widely acknowledged, appropriate and critical, it can undermine water as an investment opportunity in the eyes of some lenders, as they subsequently perceive water and sanitation as a "public good."

It is difficult for private lenders to exercise step-in rights[23] over assets deemed to be public, and water assets are often categorised in this way. Frequently, the only collateral service providers have is the regular cash-flow coming from consumers paying their tariffs. As discussed elsewhere, if the revenues from tariffs do not provide a surplus, then securing tariffs as collateral will be difficult. For smaller private service providers, this can lead to lenders requiring collateral from the service provider owners' other assets such as vehicles, real estate and other fixed transfers from national government. Finally, in some markets, the lack of clarity between the role of sub-government authorities and service providers also undermines investment opportunities.

**LOAN TENOR, SIZE AND COMPLEXITY**

WASH sector assets are expected to last a long time and so projects are amortised over a long period (ranging from 10 years up to 40 years). However, most capital markets in emerging markets cannot lend beyond seven to 15 years, meaning that there is a mismatch between the financing and the asset life. In addition to this, most providers, even small ones, need more money than they can realistically borrow. They are building "backbone" infrastructure and strictly financing this through commercial debt is costly, meaning there is an additional mismatch between the demand for money and the supply that can be provided.

At the same time, financing requests from service providers are often either not large enough or too complex to be attractive for development banks who need economies of scale to make the cost of doing business worthwhile. "There are very high transaction costs of pushing forward projects that are interesting but complicated in set-up," observes Nick Marchese of the European Investment Bank[24]. "The investment banks face limits in developing blended options for anything smaller than several million Euros". The issue of how to deal with foreign currencies so that neither investor nor borrower loses too much from exchange rate fluctuations adds additional costs, complexity and time to any transaction.

Figure 3 below provides an example of what complexity may look like for a commercial or blended water sector finance vehicle.

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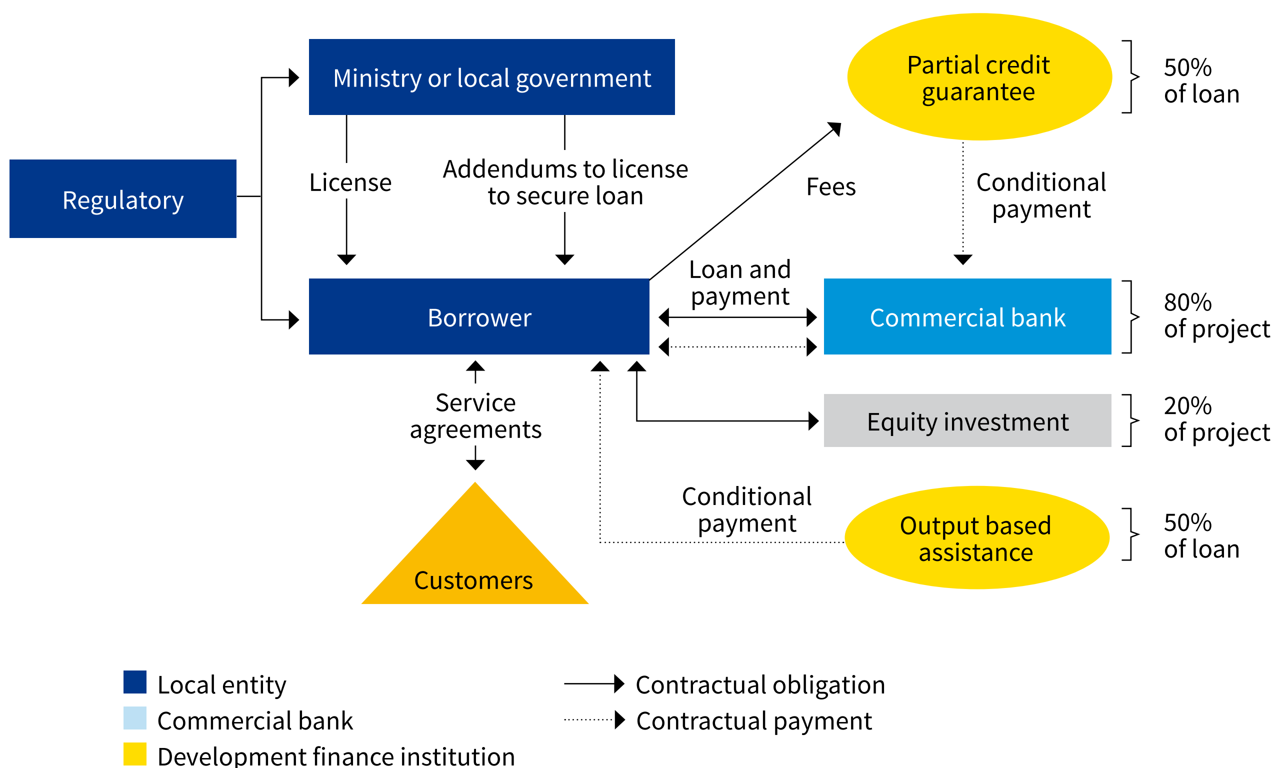
[23] Step-in rights give lenders, on the occurrence of certain events, the right to take over the borrower's shares or assets.

[24] Ella Lazarte, Senior Water and Sanitation Advisor USAID. Personal communication, February 8, 2019.

**Figure 3** Example of the structure of a commercial finance transaction in Kenya. Reproduced from Bender, 2017.




Complexity is likely to be a reality for the foreseeable future. Fixing the foundational issues is also a process that requires time and patience, and the actors involved would benefit from adapting their expectations to meet contexts that differ from those in the developed commercial markets. Development stakeholders can assist private investors to manage their expectations for these vehicles, build their comfort levels with this complexity and see the long-term payoffs. They may also be able to do more of the facility design work in the front-end to reduce the need for private investors to develop a complex system that works (e.g. make it easier to 'plug and play').

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**STRENGTHENING THE CAPACITIES OF SUPPLIERS OF FINANCE AND RURAL SERVICE PROVIDERS IN EL SALVADOR**

Belief in the big idea that the combination of technical services and access to financial capital that enables water service providers (WSP) to improve and expand services led Catholic Relief Services (CRS) and local partners to design a strategy to unlock private sector finance to improve and expand water and sanitation services in El Salvador. The Azure model mobilises technical support and investment capital tailored to water and sanitation service providers in rural communities and small towns.

In El Salvador, WASH services outside the large cities are often provided by independent community associations or municipal operators, which face challenges in accessing commercial finance because they are seen to be high risk borrowers: interest rates are typically very high and loan amounts are relatively small.

To provide WSPs access to loans that are affordable and large enough to meet their needs, CRS and local partners under the Azure model are providing engineering and business development services to WSPs, at affordable rates, brokering loan negotiations between local financial institutions and WSPs and providing

capacity building, support and monitoring to help them repay their loans. Since piloting in 2015/2016, local finance institutions (including banks and credit cooperatives) have loans totalling $521,000 to WSPs, and there have been no defaults on these loans to date. More than 70 additional WSPs are currently seeking TA and access to finance to improve and expand water and sanitation services.

After the success of these first loans, local financial institutions expressed interest in expanding loans to additional WSPs but needed additional capital to do so. In response, CRS collaborated with the Inter-American Development Bank (BID-Lab) to set up an investment vehicle called Azure Source Capital (ASC) to provide capital to local financial institutions to on-lend to WSPs.

ASC raises capital through impact investors, then disburses these funds through a trust (FideAgua) established in El Salvador. FideAgua is administrated by the Development Bank of El Salvador (BANDESAL), which uses FideAgua to loan capital to local finance institutions at market rates, who then on-lend to WSPs. Azure technical services are funded by grants from CRS, BID-Lab, fees charged to WSPs, and also by the revenues earned by ASC, as per their regulations, to ensure that WSPs are functioning and capable of operating their services, generating revenues for operations and maintenance and repaying loans.

By the time the Azure concept took shape in El Salvador, CRS had already spent a decade building relationships and ensuring a sound enabling environment. These conditions included an open, non-risk averse financial sector, empowerment of decentralised water utilities, people who are willing and able to pay for piped water services, and an environment where grant funding did not crowd out commercial financing. TA included developing modalities for impact investment in water and sanitation as well as educating various partners at regional, international, and local levels. The team observes that replicating the Azure model in places where these environmental context features are not as favourable will inevitably encounter different conditions and require a different set-up.

Source: Ian Moise, CRS; and Maren Barbee, Blue Harvest Regional Manager, 2018.

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There may also be opportunities to standardise approaches in respect of public private partnership transactions, as demonstrated by the case from India below.

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**STANDARDISING APPROACHES FOR PPP TRANSACTIONS: THE GANGA HYBRID ANNUITY MODEL (HAM) IN INDIA**

The Ganga basin supports over 500 million people, more than 200 million of whom are below the poverty line. Pollution from domestic wastewater accounts for 80 percent of the pollution load and only half of the wastewater generated on the Ganga is treated. Thirty percent of the wastewater treatment plants monitored in the basin are non-functional and only 5 percent meet relevant discharge standards. Due to low cost recovery (less than 30 percent) for sewerage services in the basin states, O&M expenses are paid out of budget funds and are typically under-funded.

To address these concerns and to make contractors more accountable, the Government of India (GoI) turned to the hybrid annuity model (HAM) contracting approach, under which the private sector designs, builds, and operates the facility. It also finances up to 60 percent of the capex investment. This is repaid, along with financing charges and O&M fees, through periodic annuity payments during the O&M period of the concession, typically 15 years. The GoI, with IFC transaction advisory support, developed standard bidding documents to streamline and standardise private contractor solicitations for concessions. So far, three projects have reached financial close and eight more are in different stages of preparation and bidding. The government portion of the capex for three projects is being funded from a World Bank loan.

The market is becoming comfortable with the risk allocation and it has created a new market for primarily domestic developers. Using this model, projects are now being prepared and bid out relatively quickly. Significant handholding was required to support the GoI in developing this approach, including analytical studies; consultative workshops with private sector and banks; and transaction advisory support.

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When considering capacity building in the WASH sector, the focus tends to be on the demand side of finance: on assisting service providers to build their operations and business cases to be more attractive to commercial lenders. Helping the domestic finance suppliers – the investors – see the opportunities for financing WASH and how small adjustments to making transactions can improve the risk profile for these loans is an equally critical aspect of the enabling environment.

Grants can be used to build the skills of commercial banks, pension regulators and securities commissions so that they better understand how investments in the water sector can match their long-term liabilities. In Kenya a set of tools has been developed to help banks evaluate investments in the WASH sector, and this has been rolled out successfully to the extent that banks are now extending finance to service providers (Lenders' Manual 2015).

## 4.2 AVOIDING MECHANISMS THAT CREATE MARKET DISTORTIONS

Some governments and development actors have explored incentives to "open" up local financial markets to the WASH sector. However, some of these initiatives can give rise to market distortions and impede progress towards sustainability.

One approach to opening WASH markets has been to allow or encourage actors to target new WASH loan products to low-income clients. While permitting this new market to flourish, governments and other stakeholders sometimes strive to protect low-income borrowers from being exploited by predatory lenders. One mechanism has been to set limits upon the interest rate margin charged on microlending[25]. While this margin cap may be well-intentioned, there is still not enough evidence on the long-term impact of this action on the larger objective of making local finance more readily available and opening WASH markets.

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### CAPPING INTEREST RATES IN KENYA

A 2016 regulatory change in Kenya capped the maximum lending rate at no more than four percent above the Central Bank base rate. The current base rate is nine percent, meaning that the maximum lending rate is 13 percent, a rate which does not allow the lender to recover their costs on higher-risk loans. This has led to a steep decline in issue of microloans[26] in Kenya, so that poorer borrowers are denied formal banking opportunities and may have to seek (or return to) informal solutions, like loan sharks or mafia-like water distribution systems that can dictate the price. Reuters reported in August 2018 that "as a result [of the interest rate margin cap], lending to the private sector fell from 9.3 percent in 2016 to 2.4 percent last year and that many thousands of Kenyans, now unable to access bank lending, have turned to more expensive borrowing".

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[25] The interest rate margin is the spread between the interest rate an on-lender obtains their bulk loan and the interest rate they charge a borrower. In the Kenya example that follows, financial institutions are prevented from charging individual borrowers more than four percent above the interest rate they obtained via a bulk loan.

[26] See Glossary.

**SUBSIDISED INTEREST RATES IN GHANA**

In 2015, the Government of the Netherlands funded a five-year project in Ghana aiming to boost WASH services for households and small/medium enterprise (SME) WASH institutions in-country. The project budget was six million Euros, of which four million were allocated to a revolving fund for lending and two million for TA to financial institutions, SMEs and households to accelerate private sector involvement in WASH (Smiet, 2018). The main financial instrument used was the revolving fund, which lent funds to micro-finance institutions (MFIs)[27] willing to on-lend for WASH at an interest rate of 10 percent as opposed to the 30 percent that was locally available.

The maximum on-lending rate that a borrowing institution can charge to a client is limited to 17 percent for a 12-month loan. However, the seven percent difference is too low for the MFIs in Ghana to recuperate their costs. In a World Bank assessment of WASH financing options in Ghana, Steel and Darteh (2018) observed that on-lending institutions in Ghana need to charge at least 24 percent over a 12-month period to cover basic operating costs, and above that amount to be sustainable and competitive against other uses of capital (Steel, W. F. and Darteh, B. 2018). This inability to recover costs makes the revolving fund unattractive to larger lending institutions. Steel and Darteh confirm: "As of March 2018, about €2 million has been lent to 24 MFIs for on-lending – mostly small NGOs in the northern part of the country. Larger MFIs […] generally have not taken up these funds because of the limited spread between the wholesale rate of 10 percent and the 17 percent ceiling placed on the retail rate that they can charge."

There are many opportunities for providing TA and capacity-building to the supply side of finance, but a more comprehensive understanding of the long-term implications of policies is required. As long as market distortions exist, regardless of how well-intentioned, private finance will not be able to compete.

## 4.3 TARGETING DEVELOPMENT FINANCE FOR MAXIMUM IMPACT

The longstanding presence and activity of development actors in WASH[28] may be one of the most complicated foundational bottlenecks to overcome to attract commercial investment into the sector at a scale that can realise the achievement of SDG 6. While many stakeholders understand the internal adjustments that need to be made, the WASH teams in development banks, multi- and bi-lateral agencies and many NGOS that work on these issues operate within their own institutional constraints and mandates. Communicating the need for procedural change, gaining institutional buy-in and then overseeing the requisite change management that would subsequently follow will be a serious undertaking.

While many development finance actors are structured with knowledge, expertise and institutional mandates to deliver the majority of their impact through loans and repayable finance (usually to governments), other development actors, including philanthropic organisations and large NGOs, have traditionally provided grant funds at country or local level directly to targeted beneficiaries. With the SDG 6 finance gap in mind, some of this latter category are now re-orientating their activities towards lending and supporting blended finance mechanisms.

To ensure the maximum impact of available grant and concessional finance to the WASH sector, and that it is targeted towards increased access and improved service delivery, strong coordination will be needed between all of the traditional suppliers of finance.

[27] Microfinance Institutions (MFIs) specialise in microlending to low-income borrowers.

[28] This section is primarily concerned with multilateral and bilateral development agencies, as they continue to make the lion's share of investment in the sector: Bilateral funders contributed 66 percent of all ODA financing to the water sector over a 20-year period, from 1995 to 2014. Multilateral funders have been growing their share over the same 20-year period: while collectively contributing 32 percent of total ODA commitments to the water and sanitation sector over the 20-year period, their share grew to become consistently over 60 percent since 2010 and peaked at 71 percent in both 2011 and 2013 (Winpenny et al., 2016).

**TARGETING GRANTS AND CONCESSIONAL FINANCE**

Governments and development donors have typically rewarded and ensured sustainability of impressive country-level reforms by providing further support to the high performers. However, after implementing successful reforms, those sectors or utilities may qualify for commercial finance at market rates. For countries to be able to extend concessional or grant finance to service providers in the next tier down, such as sanitation providers or the smaller water utilities who serve marginalised or more rural markets, they may need to consider encouraging the stronger utilities to turn to the commercial markets while reserving the concessional and grant finance for smaller less successful service providers.

Countries like Senegal, Kenya and Uganda have driven impressive service provider reforms and improved performance, with several WASH providers now on the verge of being credit-worthy. However, until recently concessional and/or grant finance has continued to be made available to them, making it unlikely for the WASH providers to turn to commercial finance. This approach is slowly changing in Kenya and now Uganda, with the stronger utilities now seeking commercial finance. Suppliers of finance can encourage wider uptake of this practice in order to help direct concessional and grant finance to the WASH providers who serve rural and harder-to-reach populations in alignment with the SDG commitment to leave no one behind.

The development finance community is already helping governments to move towards this more targeted approach. For example, The World Bank's Maximizing Finance for Development (MFD) approach, as discussed in section 2.1, is encouraging increased targeting in how its loans are deployed. It is also looking to make more of its lending in the WASH sector output-based or linked to development policy reforms through development policy operations (DPO)[29].

To ensure that development finance does not crowd out commercial finance, development actors need to adopt their own ways of assessing whether an investment is capable of attracting private finance before making concessional finance available. Focus could be on making less commercially appealing projects and service providers credit-worthy and funding the least commercially-viable projects. Consideration also needs to be given to finding less costly WASH solutions for poorer and more remote communities.

**IMPROVING COORDINATION IN-COUNTRY**

All of the recommendations in this paper require coordination and cooperation between different levels of government and with and between development partners. Some duplication could be avoided, and impact enhanced, with greater coordination between these actors to focus on achieving SDG 6. Coordination could include geographic presence to ensure all parts of a country are receiving attention and that no one is being left behind, for example, or type of activities could be strategically coordinated to align with the strengths of each involved development actor.

Guidelines and frameworks for increased coordination exist: The Busan Partnership, developed at the Fourth High-Level Forum on Aid Effectiveness in 2011, offers a framework for continued dialogue and efforts to enhance the effectiveness of development cooperation. The Addis Ababa Action Agenda (2015) provides a new global framework for financing sustainable development, particularly the Sustainable Development Goals, by aligning all financing flows and policies with economic, social and environmental priorities. Development stakeholders should unite around activating these frameworks and ensuring general buy-in. Getting all actors to use the same standards for promoting the same goals could build confidence between development partners and reduce confusion for governments.

[29] See Glossary.

# Section 5.
# Conclusions and recommendations

This paper has focused on 10 of the most critical foundational issues that need to be addressed to attract the additional finance required and make the institutional changes necessary for governments to reach and maintain SDG targets 6.1 and 6.2.

The paper highlights solutions that can be promoted to overcome these foundational issues at three levels: by governments at the sectoral level; at service provider levels and by the WASH financing community:

At the government/sectoral level:

1. Planning and financing strategies for maximising public and commercial funds to achieve social objectives
2. Effective financing strategies and economic regulation
3. Adequate performance regulation and accountability mechanisms
4. Clarity of mandate and performance obligations of service providers

At the service providers' level:

5. Improved financial and operational management and efficiency
6. Capacity strengthening for business planning
7. Enhanced autonomy and legal framework

Regarding the supply of finance:

8. Rectifying the mismatch between commercial bank risk profile and WASH sector realities
9. Avoiding mechanisms that can result in market distortions
10. Targeting development finance for maximum impact.

Ultimately, the availability of finance is primarily a function of government leadership and regulation, the operational strength of the service providers and coordination among the suppliers of finance. Each country and service provider will score differently across each of the 10 foundational issues listed here, but the chances of being able to mobilise finance at a large scale and sustain investments should increase if a reasonable level of performance across all 10 foundational areas can be achieved.

Within a systems-strengthening approach to the WASH sector, focusing on only one or two of these foundational issues is unlikely to deliver the wholesale systemic changes that are needed to achieve creditworthiness. This necessitates greater coordination between stakeholders working with the supply and the demand side of finance to ensure that each of these issues is being addressed. Moving forward, this categorisation can provide guidance to governments and development agencies on where to focus their efforts, working towards a common vision.

The recommendations are aimed at development actors and country partners at both national and sub-national levels:

**FOR GOVERNMENTS**

- The institutional reforms that are necessary in the new funding and financing landscape require **real commitment and leadership from national and sub-national governments. Water and finance ministries could work more closely** to develop financing and sector policies that support the development of well-run service providers and service delivery in both urban and rural areas.

- Commercial investment is unlikely to ever support service delivery to more marginalised areas or, in the short term, the more nascent arena of sanitation. **Developing appropriate financing strategies that prioritise public finance** for these categories with less commercial appeal via sector finance plans, mandates and targets for service providers, is important to ensuring the realisation of WASH access for all.

- **Appropriate regulation through quality monitoring as well as tariff-setting and monitoring** is a critical component of achieving long-term financial sustainability and incentivising behavioural change. A clear framework for tariff-setting methodology, reviews and process, with built-in incentives for performance can help service providers work towards commercial and technical efficiency, with cost-reflective tariffs to support these goals.

- **Financial and performance accountability is paramount.** The foundation of a healthy investment climate includes stronger sector regulation, with well-documented standards and targets and performance, clear lines of accountability, and incentives as well as penalties for performance. Closer attention to how WASH sector budgets are allocated, what is achieved with those budgets, and holding relevant service providers accountable for non-performance will improve national management of progress, build external confidence for investment and reduce the potential for corruption.

**FOR SERVICE PROVIDERS**

- **A change of focus towards being a customer-oriented business,** prioritising financial and operational planning, efficiency, serving the customer and service delivery, can help a service provider become more credit-worthy and consequently attract and sustain more finance to invest into the business. This customer focus will give financiers comfort that the provider is moving towards being credit-worthy. Such a change will require strong leadership, significant capacity building and resources and a systematic approach to turning the business around. Tools such as the Utility Turnaround Framework provide a structure and process that providers can follow.

- **Public WASH providers can work with governments to achieve greater autonomy and establish a clear mandate about who they serve,** which may encourage progress. These adjustments are likely to give them greater clarity on their cost base and more flexibility and power to turn the business around when that is needed; it may also reduce instances where lower-income communities are not served.

**FOR THE DEVELOPMENT COMMUNITY**

- **Improved coordination and targeting should be a priority.** Attracting commercial finance into a sector which relied on ODA until now requires a serious realignment of how the WASH sector operates. Isolated piecemeal solutions will not bring about the transformation needed for scale, but coordinated strategic efforts amongst all parties can reduce duplication and support governments to reach the whole sector with sustainable solutions. This can be achieved through better coordination, a re-evaluation of how impact and success are measured within the sector and the willingness to finance the enabling environment reforms discussed in this paper. Recommitting to and following through on the frameworks agreed on in the Addis Ababa Action Agenda or the Busan Partnership could be the ideal foundation for a coordinated focus on prioritising development finance for SDG 6.

- **Development actors can play a role in supporting governments to attract commercial finance into the WASH sector.** Commercial finance will not organically invest in this sector. The development community can work with service providers to enhance their creditworthiness and revitalise the sector. This can be achieved by driving and supporting the reforms that will make the sector attractive for commercial investment; by targeting technical assistance more effectively; and even providing lending towards these reforms.

- Some technical assistance should be targeted to **helping commercial investors understand the WASH sector better.** Improved understanding can help to build confidence in investing in this area.

- **Development finance and government funds are scarce resources that need to be used strategically** to maximise the well-being of those in greatest need. To ensure these funds are reserved for initiatives that cannot attract commercial finance, governments and the development community should plan and coordinate more effectively to provide improved services to those being left behind.

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# Glossary

**Bankable projects** are those which a financial institution deems to be within its tolerance for risk over the term of a financing intervention, e.g. loan.

**Blended finance** is defined by the OECD and WEF (2015) as "the strategic use of development finance and philanthropic funds to mobilise private capital flows to emerging and frontier markets". According to Goksu et al. (2017), blended finance is the strategic use of public taxes, development grants and concessional loans to mobilise private capital flows to developing markets.

**Bonds** are a debt instrument bought by investors. When buying a bond, an investor lends money to the borrowing entity (which can be a government, a municipality or a corporate) for a defined period of time at a variable or a fixed interest rate (World Bank, 2015).

**Commercial finance** is repayable finance (commonly a loan) with an interest rate determined by capital markets rather than by governments and other regulatory bodies. Commercial banks are the most common lenders of commercial financing. Commercial bank finance is less attractive than bonds as it typically has a shorter maturity (typically 5-10 years) and higher and more volatile interest.

**Concessional finance/loans are** loans with lower interest rates compared to loans available in the capital market. This type of loan comes with longer maturity periods than the ones offered by commercial loans and a grace period up to 10 years until the loan needs to start being paid back (IMF, 2003).

**Credit guarantees** "encourage lending by reducing the losses a lender experiences when a borrower defaults or by reducing the risk of default on a loan. They are designed to give commercial lenders greater comfort in lending to new sectors and can encourage more lending, extend loan tenors, and reduce collateral requirements. Guarantees usually cover part of the risk (partial credit guarantee) and often require a fee and certain project requirements or commitments" (WSP, 2015).

**Credit rating** "is a formal assessment by an independent agency of a potential borrower's relative creditworthiness that indicates the borrower's ability, capacity, and willingness to repay its debt. A shadow rating is a non-public assessment rating that provides an internal estimate of what a company or company's bond would be rated. Creditworthiness indexes depend only on ratio analysis to benchmark the financial strength and credit risk of the market players" (WSP, 2015).

**Development cooperation grants:** Financing of development projects and programmes by international organisations, NGOs, national and local governmental agencies and development banks with the purpose of promoting economic cooperation with developing countries (OECD, 2008).

**Loan tenor** is the length of time until the repayment of a loan must be completed in full.

**Microloans are** small loans often taken by low-income borrowers who lack full employment and/or a credit history. Collateral is often waived. The practice of providing microloans is often associated with national objectives to increase financial inclusion (i.e. bringing more people into the formal financial system). For these reasons, microloans are considered higher risk loans.

**Public finance** refers to government finance which comprises expenditures of public entities including the central bank, taxes, public debt and borrowing at the national, regional and local level (districts and municipalities) (OECD, 2014).

**Shadow credit rating** is an unofficial rating given to a bond or an issuing party by a credit agency, but without any public announcement of the rating. It can serve as a rough guide for issues or issuers that have not been formally rated by a credit agency.

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