



SANITATION  
AND WATER  
FOR ALL

# WATER & SANITATION: HOW TO MAKE PUBLIC INVESTMENT WORK

A HANDBOOK FOR FINANCE MINISTERS



**SANITATION  
AND WATER  
FOR ALL**

## ABOUT THE HANDBOOK

This Handbook is a call to action for ministers of finance, with inspirational case studies and forward-looking sector perspectives. It is part of an initiative by the Sanitation and Water for All global partnership to provide succinct insights and curated knowledge to ministers working in the water and sanitation sector.

More information is available on: [www.sanitationandwaterforall.org](http://www.sanitationandwaterforall.org)



# FINANCE MINISTERS' MEETING HANDBOOK: EXECUTIVE SUMMARY

## WHY INVEST IN WATER AND SANITATION?

Water and sanitation make great investments for a country, providing strong returns:

- Every dollar invested in water and sanitation brings a four-fold return
- The total economic losses associated with inadequate services are estimated at US\$260 billion annually, which is roughly equivalent to an average annual loss of 1.5% of global Gross Domestic Product<sup>(1)</sup>
- The destructive human and economic impact of global pandemics (i.e. COVID 19, Ebola, SARS, H1N1, cholera) highlight the vulnerability of those that don't have access to safe water and handwashing facilities. Investments in universal access to water and sanitation, in support of public health, can make a substantial difference and have a catalytic impact on other sectors.
- Millions of children can be saved from premature death and illness related to malnutrition and water-borne diseases. Adults can live longer and healthier lives<sup>(2)</sup>
- Gains in quality of life of improved sanitation include increased school attendance, greater privacy and safety – especially for women, children and the elderly – and a greater sense of dignity for all<sup>(2)</sup>
- The majority of the targets of the water and sanitation Sustainable Development Goal (Goal 6) link with other targets across the 2030 Agenda, and are therefore mutually reinforcing<sup>(3)</sup>
- SDG 6.1 requires water available on premises when needed. This reduces the need for standing in close proximity when accessing water and having sufficient water to allow regular handwashing – both essential to containing the spread of viruses.
- Targeting water and sanitation investments to the poor provides the highest marginal benefit.<sup>(4)</sup>

## ANNUAL AVERAGE GROWTH (GDP) IN POOR COUNTRIES

WITHOUT IMPROVED ACCESS TO SAFE  
WATER AND SANITATION SERVICES

0.1%  
GROWTH

WITH IMPROVED ACCESS TO SAFE  
WATER AND SANITATION SERVICES

3.7%  
GROWTH

## CHALLENGES

Despite this huge potential, the water and sanitation sector suffers from the interlinked challenges of under-investment and a poor performance record. Without the required ongoing investment, performance declines, undermining confidence in the sector's ability to deliver good services – therefore discouraging further investments in a vicious cycle.

This explains why the sector is still far behind its targets to reach universal coverage. Breaking out of this cycle requires political leadership to inspire change and put new plans into action, towards a brighter future that benefits each country.<sup>(5,6,7)</sup>

*While funding needs to be at least three times higher to meet Sustainable Development Goal 6<sup>(8)</sup>, a lack of money alone is not the root cause of the water and sanitation sector's problems<sup>(9)</sup>. Political decisions and policies made at ministries of finance can have a considerable positive impact on the water and sanitation sector, as demonstrated by the examples from many countries presented in this handbook.*

## WHY FINANCE MINISTERS?

The current global pandemic COVID-19 and its impact on the world's economies is irrefutable proof that solving water and sanitation challenges goes beyond the public health imperative. Now more than ever, finance ministers can look for opportunities to collaborate with their peers in other ministries – and use the examples and techniques suggested in this handbook – to develop financial policies that contribute to lasting solutions.

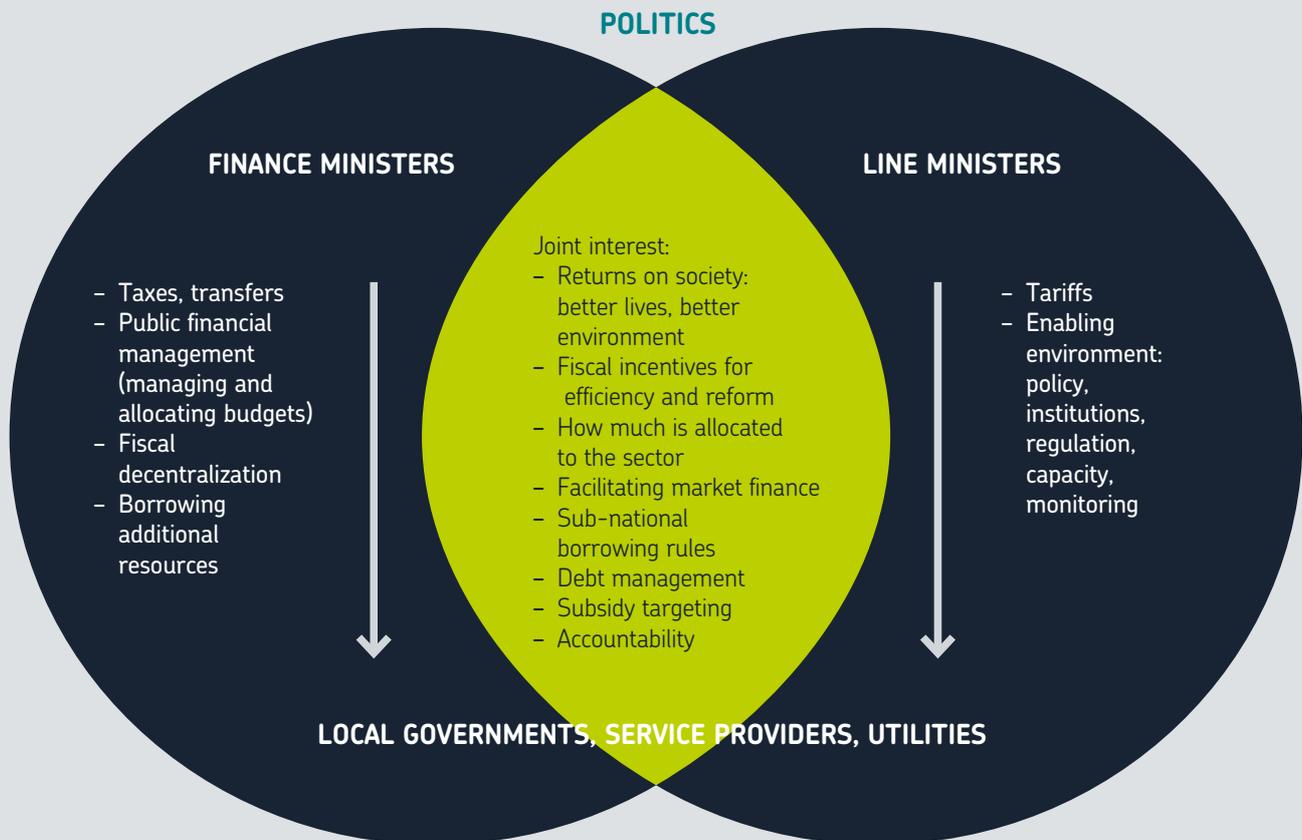
Finance ministers can operate within the existing political constraints to help boost the level and effectiveness of sector financing, in close cooperation with their counterparts responsible for water, sanitation and hygiene. Finance ministers are critical to the sector because they hold important coordination functions: horizontally with other line ministries (health, rural and/or urban development, education, environment, etc.) and vertically with local government and utilities.

The responsibility to adopt solutions that can deliver universal access to sustainable water and sanitation services lies, in the first instance, in the hands of political leaders. This handbook provides a framework for thinking about actions that can be taken to address the deep-seated challenges of the sector, once such leadership is mobilized.

This handbook highlights many country examples where this coordination and leadership has been critical to turn around sector performance.

The current global pandemic COVID-19 and its impact on the world's economies is irrefutable proof that solving water and sanitation challenges goes beyond the public health imperative. More now than ever, finance ministers can look for opportunities to collaborate with their peers in other ministries – and use the examples and techniques suggested in this handbook – to develop financial policies that contribute to lasting solutions.

## JOINT INTEREST BETWEEN FINANCE MINISTERS AND LINE MINISTERS



### OTHER RELEVANT STAKEHOLDERS

- |                       |                                |                        |
|-----------------------|--------------------------------|------------------------|
| National institutions | Non-governmental organizations | Financial institutions |
| Local institutions    | Civil society organizations    | Bilateral agencies     |
| Consumer associations | Private sector                 | Multilateral agencies  |
| Research institutions |                                |                        |



## FOUR CRITICAL INTERVENTION AREAS WITH THE POTENTIAL TO MOBILIZE MORE RESOURCES INTO THE SECTOR

Finance ministers can improve water and sanitation for millions of people by supporting policies that:

1. **Maximize value from existing public funding by** incentivizing sector performance, improving subsidy targeting and promoting better sector planning and management.
2. **Mobilize more funding** by setting up adequate cost recovery policies, reforming tariff systems, introducing earmarked taxes and establishing an array of options for cross-subsidization.
3. **Increase repayable domestic finance** through mechanisms that reduce perceived risks and pool finance at national, municipal and household levels.
4. **Encourage innovation and least-explored new approaches** such as climate funds and social impact bonds, to tap sources of finance rarely accessed by the water and sanitation sector.

*All countries can raise varying degrees of money by maximizing value from existing public funding and mobilizing additional funds. However, the ability of low- and middle-income countries to mobilize additional, repayable financing and explore financial innovations is highly dependent on the ability of the sector to demonstrate that it receives and makes good use of existing funding.*

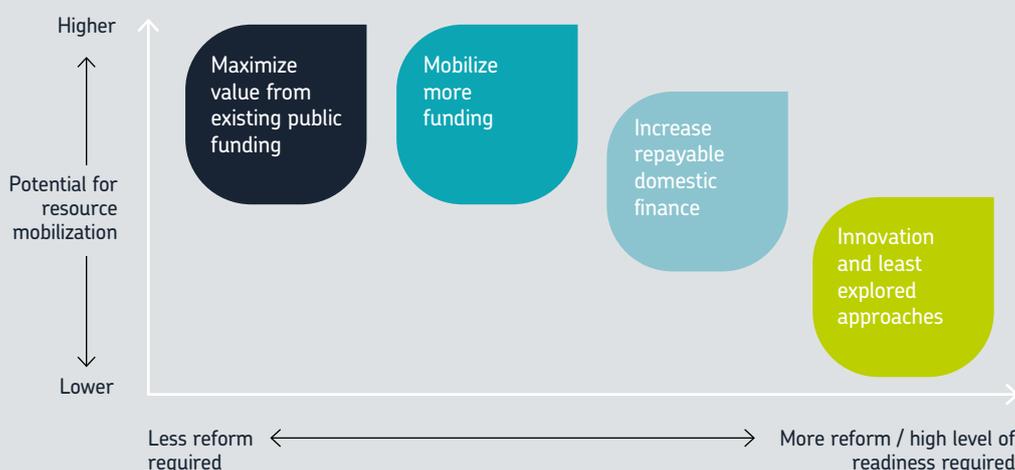
## SECTOR READINESS TO MOBILIZE FINANCE

Attracting the necessary investment to the sector depends on a country's ability to reform the sector by strengthening or otherwise addressing a set of key foundational elements: the regulatory environment, the governance structure, the financial/technical/commercial performance of service providers, and the resulting perception of risk by investors.<sup>(9)</sup>

Finance ministers cannot address all of these issues, but they can influence the direction of reform – either on their own initiative, or in partnership with sector counterparts. Finance ministers, therefore, are central to delivering the benefits that flow from universal access to sustainable water and sanitation services.

*The required foundational reforms are country-specific, but political championing and committed leadership will always be critical to support the scale of the changes required.*

### FOUR CRITICAL INTERVENTION AREAS WITH THE POTENTIAL TO MOBILISE MORE RESOURCES



## WHERE TO START?

Which areas to focus on, and what actions a finance minister might take to help improve water and sanitation in their country, depend strongly on how prepared or reformed the existing sector is. Water and sanitation sectors can usually be described as being in one of three categories:

1. If the sector is **already reformed** with good governance and incentives, then finance ministers may help to encourage financial markets supporting the sector to develop, whilst supporting continued efforts to improve efficiency.
2. If the sector is **reformable** – and willing to reform – finance ministers may support those reforms with financial incentives to deliver better governance, efficiency and encourage easier access to market finance.
3. If the sector is **not reformable** – as a whole – then finance ministers can provide targeted support to those parts that are willing to improve (e.g. urban utilities in larger towns) through well-designed incentives and subsidies.

*Water, sanitation and hygiene financing will have greater impact if applied strategically. This means as part of a broader package of reforms, aimed at improving sector efficiency and governance and increasing sector funding sources. Such a strategy will lay solid foundations for generating sufficient water, sanitation and hygiene service revenues that can repay commercial financing over time.*

## GUIDING PRINCIPLES

The experiences of countries successfully addressing water and sanitation challenges (many of which are presented in this document) can be distilled into a set of guiding principles for ministers of finance:

- Verify that there is consensus and high-level political buy-in to prioritize universal access to sustainable water and sanitation services in a realistic timeframe, setting target results to measure success
- Support the sector with the financial reforms necessary to establish the required foundations to mobilize funding and finance
- Create a path to mobilize new sources of funding – whether from taxes, tariffs, transfers or repayable finance – with a specific focus on sanitation
- Support infrastructure investments only when there is clarity on how operational and maintenance expenses will be met
- Use public funds to support the reduction of inequalities in service provision and for subsidizing services to those who cannot afford to pay more.



# KEY MESSAGES FROM THE HANDBOOK

## MAXIMIZE VALUE FROM EXISTING PUBLIC FUNDING

There is often a disconnect between decisions made on investments, tariff design, cost recovery strategies, implementation timeframes and financing sources. Politically-influenced perceptions of what is considered affordable for consumers has blocked progress towards universal access, led to utilities operating at a loss, and driven an increase in service inequalities in many countries.

Ministries of finance should only endorse substantive investment in sectors that are reformed or are reforming. Realistic plans with strong political support provide greater confidence to stakeholders and investors.

Finance ministers can work closely with sector ministers and relevant counterparts to follow strategies that deliver better results for the population, by developing government funding that uses results-based financing and

better subsidy targeting. This will help put the sector on a pathway to improved financial sustainability, maximize the benefits from public finance, and begin to change mindsets in and around the sector.

Finance ministers can implement the reforms needed to ensure timely, predictable and adequate flows of finance are disbursed from the central level to the mandated district level authorities and service providers.

While sector ministers and/or regulators are the ones who design the subsidies for the sector, it is finance ministers that provide the required authorizations and budget allocations. Subsidy design has not changed much in the past 30 years in most countries. Where this is the case, finance and line ministries might usefully evaluate their effectiveness.

## INCREASE REPAYABLE DOMESTIC FINANCE

For countries with adequate regulation and institutions, finance ministers can take actions to increase new domestic financing (i.e. repayable finance or market finance). Within the boundaries of their fiscal space, finance ministers can allow borrowing by service providers and/or decentralized government institutions and can facilitate the market for repayable domestic finance.

Governments can employ initiatives to soften the impact of accessing market finance by blending market finance with concessional finance and/or reducing risk to lenders, thus attracting better borrowing terms. Government-backed guarantees are one option, but many variations can be explored.

Finance ministers can support the introduction of service provider credit ratings as an additional method to improve understanding on borrowing opportunities.

## MOBILIZE MORE FUNDING

Ministers of finance have the political and the technical power to encourage sector reform and help structure funding solutions at scale that will leave a long-lasting legacy. Fiscal policy approaches have the potential to raise large amounts of revenue towards the achievement of universal access to water and sanitation services. Such approaches are mostly developed 'outside' the water sector, and centrally managed by dedicated departments within the ministry of finance.

The first step for finance ministers would be to identify where funds are currently being allocated and where there are obvious gaps to meet the Government's strategic long-term goals for water and sanitation.

Some public sector services (e.g. health, education, security, justice) have low capacity

to generate revenues and are therefore largely dependent upon subsidies. The water and sanitation sector, however, draws to varying degrees upon revenues from household contributions through tariffs and through their own investments in self-supply. The finance minister can aim, in the long term, to have a well-functioning sector that only needs limited and focused public subsidies whilst financing itself primarily from tariff revenues.

If water and sanitation tariffs are low, the state can end up subsidizing the rich. Finance and sector ministers can review the level and structure of tariffs (including affordability considerations for the poorest), as well as identifying opportunities for cross subsidies and improve efficiency.

## ENCOURAGE INNOVATION AND LEAST-EXPLORED NEW APPROACHES

Finance and sector ministers can collaborate to explore and develop new and innovative financing approaches. Public finance might stimulate creation of a new market segment. This includes accessing climate funds and harnessing non-traditional international investments such as social impact bonds.

However, new financing approaches and opportunities should only be attempted alongside initiatives to reform the sector, demonstrating visible progress in improving the financial health of the sector and its institutions.





OPENING MESSAGE  
BY **THE HON.  
KEVIN RUDD**

# WATER & SANITATION: HOW TO MAKE PUBLIC INVESTMENT WORK

## A HANDBOOK FOR FINANCE MINISTERS

Your Excellencies,

Providing water and sanitation for all remains a key global challenge. The devastating and ongoing impact of COVID-19 upon the world's people and its economy demonstrates how access to water and sanitation is fundamental to sustained economic growth and building resilience to natural disasters.

I, like everyone, am inconvenienced by the global crisis. But this is nothing compared to my fellow human beings living in dense urban areas with limited access to safely managed water supply and sanitation. There is no question that our ability to collectively defeat this global threat is hampered by our inability to provide universal water and sanitation services and achieve the other Sustainable Development Goals by 2030.

Unfortunately, this sector continues to struggle to get the political attention it needs unless, as now, a terrible tragedy reveals the need for us to reprioritize our governmental responsibilities. Let's be clear: the biggest roadblock for many governments to deliver universal water and sanitation access is securing the necessary finance – whether it be for the ongoing costs of service delivery or for service expansion, quality improvement, or asset rehabilitation.

This is therefore inherently a political challenge, requiring the involvement of both sector ministers and finance ministers.

To make the most of existing resources and to generate the unprecedented levels of additional finance we will require to achieve the goals we have set, the sector needs to ensure water and sanitation is seen as an opportunity for investment, and not just a drain on national budgets. Traditionally, governments have relied on taxes, tariffs and transfers to subsidize the sector. But clearly, we require new thinking and new approaches – many of which are highlighted in this Handbook.

I understand the political constraints within which you operate, but also the political opportunities that lie before you – especially in a sector as far reaching as this. This Handbook is therefore designed specifically to help you in this task, including how to deliver greater efficiencies in the sector and ensure there are much needed reforms along the way.

The examples presented in this Handbook have been carefully selected to demonstrate how investments in water and sanitation can also help achieve a government's broader economic and social objectives, how governments can help de-risk and incentivize improved performance in the sector to attract greater market finance, as well as how this additional finance can then be applied.

If we are to be successful, finance ministers must be involved. We hope this Handbook is useful for you, and as ever, the SWA Secretariat stands ready to assist you and your government. Together, we can succeed in this crucial endeavour – and provide sanitation and water for all.

**The Honorable Kevin Rudd AC**  
High-level Chair, SWA  
26<sup>th</sup> Prime Minister of Australia

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# 1. THE WATER AND SANITATION SECTOR

## A BACKGROUND

### THE GOALS AND TARGETS OF THE SECTOR

For the last ten years, water and sanitation have been recognized as human rights.<sup>(10)</sup> They are also services with good economic returns.<sup>(3)</sup> And yet, they are not universally provided. People – particularly women – are willing to pay for the convenience of water and sanitation services,<sup>(11)</sup> but water utilities often struggle to cover even their operations and maintenance costs,<sup>(12,13)</sup> let alone contribute to financing the ever-growing needs of the communities they serve.

The first 'Water and Sanitation Decade' was declared in 1980-1990. More recently, the Sustainable Development Goal (SDG) 6 targets, to be achieved by 2030 <sup>(14)</sup> were adopted by heads of state and governments of the United Nations:

- Target 6.1: Universal and equitable access to safe and affordable drinking water for all
- Target 6.2: Access to adequate and equitable sanitation and hygiene for all and an end to open defecation
- Target 6.3: Improve water quality, wastewater treatment and safe reuse
- Target 6.4: Increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity
- Target 6.5: Implement integrated water resources management
- Target 6.6: Protect and restore water-related ecosystems
- Target 6.A: Expand international cooperation and capacity building
- Target 6.B: Support stakeholder participation

## PROGRESS TO DATE AND ACCELERATION REQUIRED TO MEET 2030 WATER, SANITATION AND HYGIENE TARGETS

While there has been progress on improving services globally, many countries are making more investments in the sector (mainly in urban areas) only to see their coverage levels stagnate – or even decrease.<sup>(15)</sup> This is happening across many lower- and middle-income cities in Asia and Africa.

WHO/UNICEF JMP estimates suggest that achieving universal access to basic services will require doubling current rates of progress, while reaching the more ambitious targets of safely managed water and sanitation services by 2030 will require a four-fold increase in current global rates of progress.<sup>(16)</sup> Safely managed means that drinking water is free from contamination and available when needed on premises, and that waste from household toilets is treated and disposed of safely.

### GLOBAL PROGRESS ON BASIC AND SAFELY MANAGED SERVICES AND ACCELERATION REQUIRED FOR UNIVERSAL ACCESS BY 2030 <sup>(17)</sup>

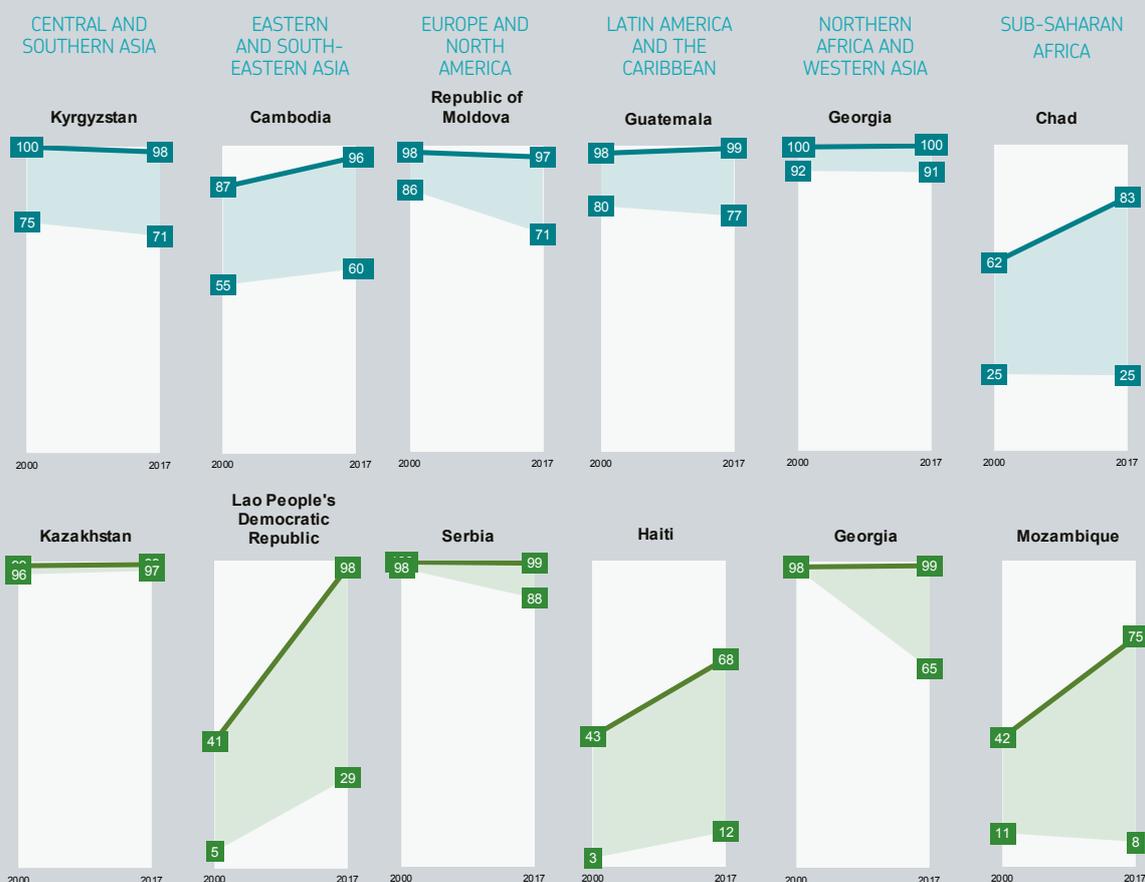


## INEQUALITIES AND AFFORDABILITY

Even though coverage of services is increasing, inequalities in access to services are also increasing in many countries.<sup>(6)</sup> There is evidence that the poorest in urban and rural areas are paying more for off-grid water than people accessing water through household connections.<sup>(18, 19)</sup>

*Politically-influenced perceptions of what is considered affordable for consumers has blocked progress towards universal access, led to utilities operating at a loss, and driven an increase in service inequalities in many countries.<sup>(6)</sup>*

## LARGEST INCREASE IN WEALTH GAP, WATER AND SANITATION, PER SDG REGION, 2000-2017<sup>(20)</sup>



## WHY INVEST IN THE WATER AND SANITATION SECTOR?

The overwhelming economic and social benefits of having universal access to water and sanitation provide a compelling case for finance ministers to take immediate action to resolve sector challenges. Benefits include reduced healthcare costs for individuals and society, and greater productivity and involvement in the workplace.<sup>(11)</sup>

Millions of children can be saved from premature death and illness related to malnutrition and water-borne diseases. Adults can live longer and healthier lives. Gains in quality of life include improved school attendance, greater privacy and safety – especially for women, children and the elderly – and a greater sense of dignity for all.<sup>(2)</sup>

And there is more. Improved water resource management and water storage capacity makes the economy more resilient to external shocks, such as rainfall variability, and thus provides a stable and sustainable base for increased food and industrial productivity and production, to maintain economic growth and development. Reliable access to water resources is also a strong competitive advantage to attract business opportunities.<sup>(4)</sup>



## 2. THE FINANCING GAP FOR WATER AND SANITATION

### THE FINANCIAL NEEDS

The World Bank has estimated that to meet universal access to safely managed water and sanitation, current annual investments in infrastructure would need to be at least three times higher to reach the required US\$114 billion per year.<sup>(6)</sup> This is a daunting figure, and it is not the whole picture: it does not include the significant operating and maintenance costs that such infrastructure requires.<sup>i</sup>

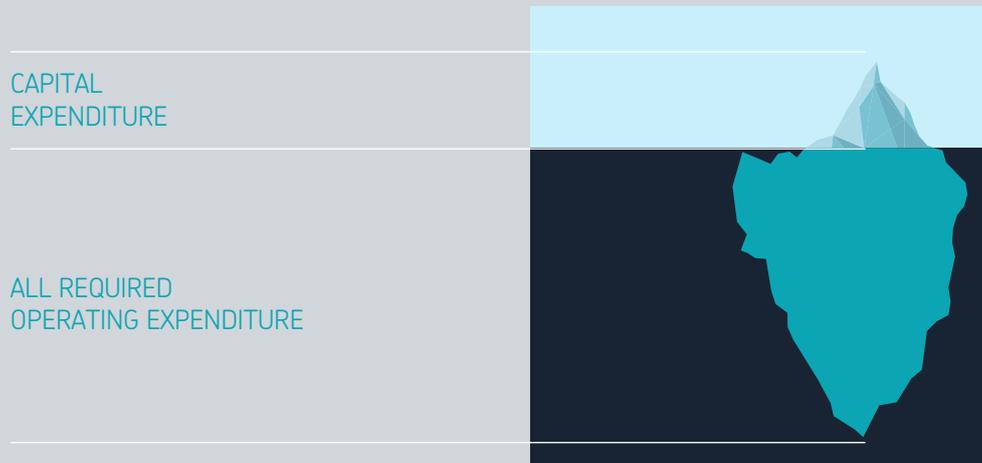
Moreover, while the issue of financing water services is complex, it has been the subject of intense analysis and discussion; in contrast, tackling the issue of how to mobilize additional finance for large-scale sanitation programmes has been largely ignored.<sup>(21, 22)</sup>

### THE HIDDEN COSTS OF OPERATION AND MAINTENANCE

The challenges for the sector will only increase in the face of projected population growth, urbanization and climate change,<sup>(23 to 26)</sup> all of which combine to add increased stress on ageing infrastructure as well as demands for new infrastructure. The need to repair and maintain replacing ageing infrastructure is the unknown cost that comes in addition to the US\$114 billion mentioned above, and projections assess that these maintenance costs will eclipse the cost of installing new infrastructure well before 2030.<sup>(27)</sup> Taken together, this leads to a formidable level of investment required.<sup>(16)</sup>

<sup>i</sup> Maintaining existing assets in low- and middle-income countries is estimated to require up to 1.5 times the amount needed for the construction of new infrastructure, mainly due to a large delay in maintenance of existing assets.<sup>(6)</sup>

## THE MAJOR FUNDING REQUIREMENTS ARE NEITHER SEEN NOR ADDRESSED



## SOURCES OF FUNDING

The sector is traditionally funded by three main sources: tariffs, taxes and transfers. The '3Ts', as they are called, leave ample opportunity for repayable finance to be introduced into the sector.<sup>(28)</sup>

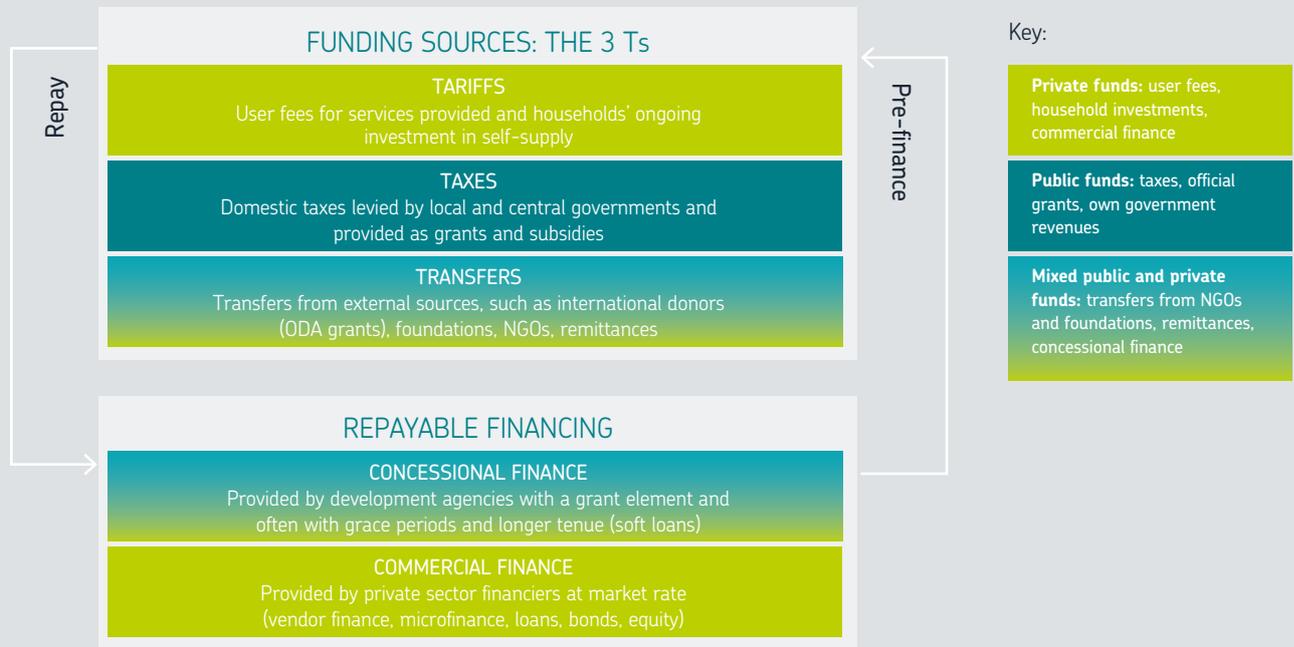
In terms of volume, the highest and most predictable funding sources are tariffs.<sup>(29)</sup> However, the sector has historically depended heavily on less predictable taxes, and on transfers (i.e. overseas development assistance, or aid) to fund investments. Sanitation, water and hygiene comprised 57 per cent of total development flows to the sector from 1995 to 2014,<sup>(30)</sup> but that share of total development assistance has started to decline in relation to other sectors.<sup>(31)</sup>

The capital-intensive nature of the sector, and the backlog of investment, means that the sector is dependent on public funds, at least in the short term.<sup>(31, 32, 33)</sup>

*Some public sector services (e.g. health, education, security, justice) have low capacity to generate revenues and are therefore largely dependent upon subsidies. The water and sanitation sector, however, draws to varying degrees upon revenues from household contributions through tariffs and through their own investments in self-supply. The finance minister can aim, in the long term, to have a well-functioning sector that only needs limited and focused public subsidies while financing itself primarily from tariff revenues.*

When taxes and tariffs are not enough to finance capital expenditure, government actors can turn to repayable finance as an option. Borrowing limits (fiscal space) apply, however,<sup>(34)</sup> and private finance is inevitably going to depend largely upon revenue generation via tariffs, to service the debt.<sup>(35)</sup>

## SOURCES OF FUNDING AND FINANCING: PUBLIC AND PRIVATE



Source: Adapted from World Bank<sup>(36)</sup>

The experience of middle- and high-income countries demonstrates that a mix of public funding and private finance can effectively bridge the funding gap.<sup>(37)</sup> Attracting commercial finance into the water and sanitation sector of developed countries, where the financial standing and governance of service providers is robust, has been relatively easy.<sup>(33)</sup>

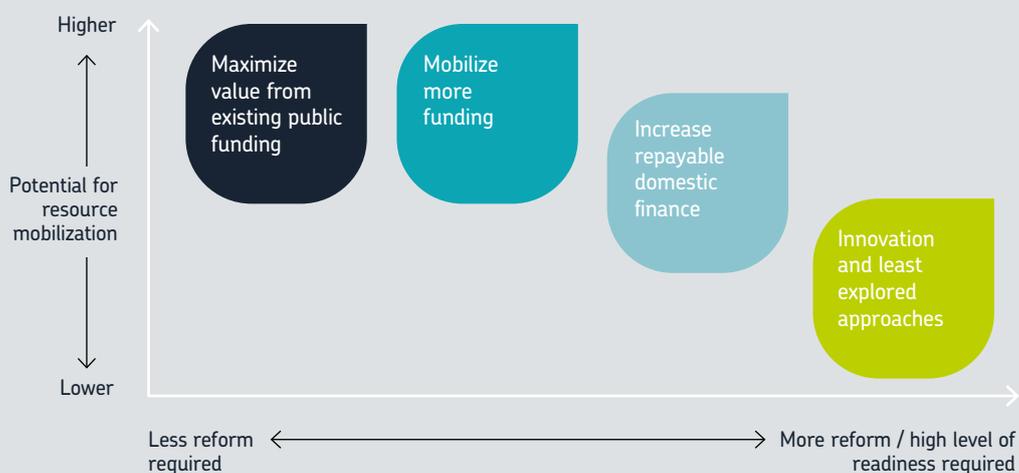
Doing the same in developing countries, however, will require a bundle of practical interventions, ranging from maximizing the efficiency and effectiveness of existing funding sources to mobilizing new sources of funding and providing stronger performance incentives.<sup>(9)</sup>

### 3. TARGET AREAS FOR FINANCE MINISTERS' SUPPORT



What are the financing policies and strategies that have delivered, or shown the potential to deliver, better results? Four main areas of support have been identified as most effective for mobilizing additional finance and using existing financing sources more effectively, depending on the level of sector 'readiness' or reforms needed.

#### FOUR CRITICAL INTERVENTION AREAS WITH THE POTENTIAL TO MOBILISE MORE RESOURCES



The Handbook highlights case studies from countries across the world, to illustrate various approaches to improving sector financing and explore some of the impacts the approaches have had. These are summarized by area of support below:

- 1) Maximize value from existing public funding
  - > Incentivise sector performance (Indonesia, Peru)
  - > Improve subsidy targeting (Chile, Colombia)
  - > Promote better sector financing planning and management (Cambodia, Mozambique)
  
- 2) Mobilize more funding
  - > Set up adequate cost recovery policies for the sector: tariff reforms (Burkina Faso)
  - > Allocate more government resources to water and sanitation (Mali)
  - > Introduce earmarked taxes (South Korea, India, Costa Rica)
  - > Implement cross-subsidies from other sectors, universal surcharges and solidarity taxes (Argentina)
  
- 3) Increase repayable domestic finance
  - > Using guarantees to de-risk and mobilize private domestic finance (The Philippines)
  - > Improve sector performance through assessment of service providers' credit worthiness (Indonesia, Kenya)
  - > Work with private sponsors to raise finance (India, Rwanda)
  - > Strengthen financial markets using municipal development funds (Czech Republic) and support sector 'revolving funds' (Bulgaria)
  - > Support the next generation of microfinance approaches (The Philippines, Peru, India, Kenya)
  
- 4) Encourage innovation and least-explored new approaches
  - > Accessing climate funds (Kiribati)
  - > Harnessing non-traditional international investments: social impact bonds and other methods (Cambodia)

All the strategies above aim to mobilize more financing and funding to the sector, but there is a real challenge of intergovernmental financing arrangement. Fiscal decentralization, in many countries, has not followed functional decentralization. Rural water and sanitation service providers and authorities are generally less able in terms of human resources and the required skills to implement sector policies. Meagre budget approvals arrive late, and disbursements fall short of allocations.<sup>(6)</sup>

*Finance ministers can implement the reforms needed to ensure timely, predictable and adequate flows of finance are disbursed from the central level to district-level authorities and service providers.*

## SUPPORT AREA 1: MAXIMIZE VALUE FROM EXISTING PUBLIC FUNDING

The development of water and sanitation services in high-income countries over the past 200 years has been supported by public funding. Infrastructure was financed by a mix of central government grants, loans, bonds and earmarked taxes, while service costs were covered by tariffs.<sup>(37)</sup> By doing so, and through supporting well-governed institutions and enterprises, governments have been able to reduce perceptions of the sector being high-risk, facilitating access to market finance that was previously out of reach.<sup>(38)</sup>

*Finance ministers can work closely with sector ministers and relevant counterparts to follow strategies that deliver better results for the population, by developing government funding that uses results-based financing and better subsidy targeting. This will help put the sector on a pathway to improved financial sustainability, maximize the benefits from public finance, and begin to change mindsets in and around the sector.*

## INCENTIVISING SECTOR PERFORMANCE

Despite (or perhaps due to) decades of easy financed not linked to performance, the sector is relatively inefficient.<sup>(39, 33)</sup> Actors in the sector are (for the most part) neither penalized for poor performance, nor rewarded for improving. A move to output-based financing – linking funding to results – will help incentivize the sector to deliver results from its investment. New investors will also want to see improved efficiencies before investing, and systems that hold people accountable are more likely to generate a culture of continuous improvement.

In many countries, the debt service responsibility of central governments is not passed on to service providers. If service providers were genuinely accountable for debt service, then they might be incentivised to focus on a) choosing the most cost-effective solutions and b) maintaining existing assets. This would be a substantial improvement upon the predominant cycle of ‘invest-neglect-invest’, which leads to shortened asset lives, wasted investment and low service standards.

## INDONESIA

### Water and sanitation incentive-based financing at scale

There are two main programmes to implement incentive-based financing in the water, sanitation and hygiene sector in Indonesia. These are the ‘Water Hibah’ (a grant to incentivize local governments to allocate their budget in order to increase households’ connection to piped water supply systems in urban and rural areas) and the ‘Sanitation Hibah’ (a grant to incentivize local governments to allocate their budget to increase access to improved sanitation: for example, by increasing house connections to existing city-scale sewerage systems, the development of new decentralized sewerage systems, and upgrades to septic tanks at household level).

Coordination for the programme is by the Ministry of National Planning and Development (BAPPENAS) and the Ministry of Public Works and Housing (PUPR). PUPR also serves as the general implementing agency of the programme, with assistance from the Ministry of Finance, supported by Australia’s Department of Foreign Trade (DFAT). Funds for local governments are directly transferred from the Ministry of Finance.

The Water Hibah programme approach used ‘centre to regional’ fiscal transfer arrangements, totalling US\$1 billion of government funds between 2015 and 2019. DFAT has provided support in the preparation and implementation of the programme, including strategic advice to modify the programme to suit Indonesia’s context, to increase cost efficiency and manage risks.

The programme first requires local governments to allocate their own budgets, for connecting households to sewerage or water systems, or the development of septic tanks. The local governments get reimbursed after technical verification, which is conducted by the Ministry of Public Works and Housing with support of development partners and the state auditor.

From 2010 to 2019, the Water Hibah programme provided more than 1.2 million household connections (about 6 million people). Meanwhile, the Sanitation Hibah contributed to the development of new septic tanks in 52,000 households (from 2016 to 2018) and enabled 18,100 households to connect to the sewerage system (from 2011 to 2018).

Both grants are targeting lower-income households in Indonesia. Programme guidelines state that all infrastructure developed should meet a set of minimum standards, and there are several mechanisms applied to ensure that targeted communities receive the grants' benefits, including through household survey and verification. However, minimum standards and programme mechanisms do not address directly how to ensure that all marginalized and vulnerable people are targeted (for example, ensuring access for disabled people). The grants would therefore benefit from increasing the scope of their assessments, when feasible.

By 2018, the water and sanitation grants had increased to US\$44 million per year in 2018. The overall figure for the grants from 2010 to 2018 now stands at US\$171 million.

Incentive-based financing is successful not only in providing incentives to local governments to prioritize and allocate their budget for water and sanitation, but also ensuring that facilities are actually built and used, because the grant is only provided once facilities are technically verified. This is not to say there were no challenges; obstacles faced include local government's lack of capacity on technical construction, difficulties with financial reporting and more general administration and financial processes, including issues arising from poor coordination among several stakeholders.

Sources: DFAT<sup>(40)</sup>, Government of Indonesia<sup>(41)</sup>

## PERU

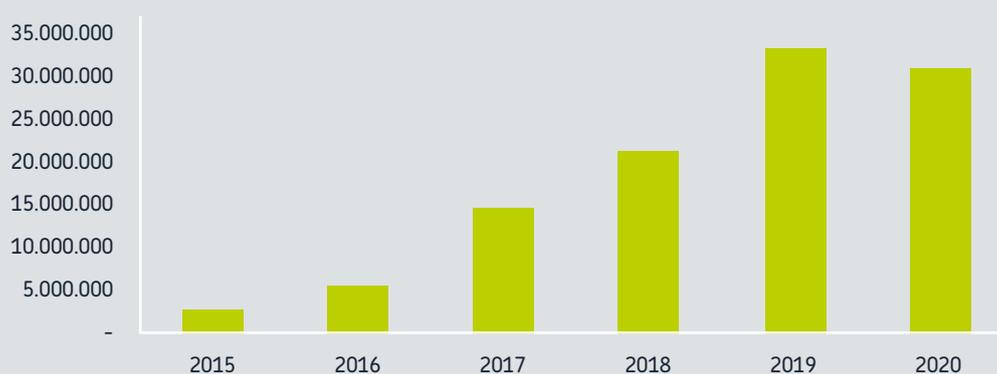
### An incentive programme to improve municipal management

The 'Incentives Program for the Improvement of Municipal Management' (MIP) was created in 2009 in order to improve the quality of public services provided by the municipalities of Peru. It uses direct transfers to local governments, on condition of achieving set goals, which are checked twice a year. The programme also provides technical assistance, designed to improve the managerial skills of the personnel working in these districts. The programme is led by the General Directorate of Public Budget at the Ministry of Economy and Finance.

The programme supports different sectors using public funding from the national government. The incentives scheme has steadily increased its funding for Peru's water and sanitation sector, increasing from roughly US\$2.5 million in 2015 to US\$32 million in 2020.

The programme provides additional public funds to be used for either new systems or rehabilitation, while improving institutional capacities for delivering services. One of the most relevant institutional changes required by the programme was the creation of Municipal Technical Areas (MTAs), which provide dedicated assistance to community organizations that manage water and sanitation services in rural areas.

#### INCENTIVES PROGRAMME INVESTMENT IN WATER AND SANITATION 2015-2020 (IN US\$)



The MIP programme classifies municipalities according to social, geographical and economic factors, sorting them into six categories. The finance ministry makes direct transfers according to these categories and against achievements such as:

- Number of official water, sanitation and hygiene MTAs created and implemented
- Number of rural water operators registered
- Number of water supply systems built or rehabilitated
- Number of water systems chlorinated

As of 2019 there were more than 1,500 MTAs (out of a total of 1,800 districts) serving approximately 30,000 community organizations in Peru. Between 2015 and 2019, 15,901 rural water and sanitation operators were registered, 31,917 water systems were built, 2,500 rural water systems were rehabilitated and 1,997 chlorinated systems were installed.

**Source:** Data provided by Peru's Ministry of Economy and Finance and Ministry of Housing, Construction and Sanitation, for the National Rural Water Supply and Sanitation Program for Peru.

## IMPROVING SUBSIDY TARGETING

Subsidies are typically implemented with the well-meaning intent of ensuring that the poor are able to access basic services. However, poorly designed and/or targeted water subsidies end up benefitting those with existing connections to sewerage or water networks, many of whom are non-poor.<sup>(42)</sup> As a result, the poor do not benefit from the subsidy, and the water service loses the tariff revenue it could have collected from wealthier households.

*While sector ministers and/or regulators are the ones who design the subsidies for the sector, it is finance ministers who provide the required authorizations and budget allocations. Subsidy design has not changed much in the past 30 years in most countries. Where this is the case, finance and line ministries might usefully evaluate their effectiveness.*

Designing effective subsidy mechanisms can mobilize significant funds for the sector. They can be used to expand coverage to low-income households or to finance services where there is low willingness to pay, such as wastewater treatment. A recent World Bank publication<sup>(43)</sup> demonstrates that annual subsidy amounts range from 0.05 per cent to 2.4 per cent of GDP, with low-income economies generally at the high end of this range.

The cost of water and sanitation subsidies in 194 countries (excluding China and India) was estimated at US\$320 billion per year. Most of these subsidies benefit existing customers and are not used to extend services to the underserved. A deep dive in 10 countries indicates that, on average, only 6 per cent of the subsidies reached the poorest population quintile.<sup>(43)</sup>

**SUBSIDIES THAT REACH THE  
POOREST QUINTILE OF A COUNTRY  
POPULATION (AVERAGE)**

**6%**



**SUBSIDIES THAT REACH THE  
WEALTHIEST QUINTILE OF A COUNTRY  
POPULATION (AVERAGE)**

**56%**



To ensure that tariffs are affordable, and water and sanitation services are accessible by the poorest, European countries have experimented with different approaches over the past 10 years. The 2017 report *Water Affordability: Public Operators' Views and Approaches on Tackling Water Poverty* describes the approaches of several public operators.<sup>(44)</sup>

It may be appropriate to revisit subsidy designs and consider segmenting service providers by service coverage, wealth, and percentage of people living below the poverty line in the service area. This would help identify which utilities have low coverage and need higher subsidy levels (low revenue base and high need for investment), and which utilities have a higher coverage and thus lower subsidy levels (high revenue base and low need for investment). Richer areas should have a greater assumed ability to pay than poorer areas.

Likewise, subsidies are often applied equally to all investment categories. This blanket approach overlooks the fact that some investments have better financial returns than others, while others may have broader social and economic benefits that outweigh the financial benefits. Thus, a subsidy for expanding sanitation services or for extending water networks to poor areas might sensibly attract a higher subsidy than investment in energy efficiency which may pay for itself within two to three years.

On sanitation specifically, GIZ has shared its experiences with pro-poor subsidies for the construction of household toilets.<sup>(45)</sup> This work seeks to address the question of how to design smart subsidies that can be implemented at scale, to significantly increase access to sanitation in the context of scarce financial resources. After dispelling three prevalent myths about subsidies for household sanitation, the report describes the design variables for the subsidies, and examines the inevitable trade-offs that must be weighed when making design choices.

## CHILE

### One tariff with means-tested water consumption subsidies for the poor

Chile introduced means-tested water consumption subsidies in the early 1990s. Private companies deliver the service, but public authorities determine how the subsidies are applied. The Government pays the subsidies to service providers on the basis of the actual amount of water consumed, rather than a set pre-established amount.

By law, the subsidy can cover 25% to 85% of a household's water and sewerage bill for the first 20 cubic metres per month, dependent upon ability to pay. The consumer pays full tariff on all consumption above this monthly volume 'cap'. Each year, the Ministry of Planning determines the level of subsidies for each region, and how they are to be applied. The subsidy follows the standard set by the Pan-American Health Organization, which states that "no household should pay more than 5% of its monthly income on water and sewerage charges", meaning that only households that would be unable to purchase a subsistence level of consumption benefit from the subsidy.

The subsidy scheme is funded entirely from the central government budget and administered by the Ministry of Social Planning in conjunction with municipal governments. Using household survey information for each region and each company's published tariffs, the level of subsidy for each region can be determined, meaning that poorer or harder to reach areas are seen by service providers as viable areas for expansion.

Source: World Bank<sup>(46)</sup>

# COLOMBIA

## Subsidies and incentives targeted to rural areas and informal neighbourhoods

Colombia's law governing public utilities has been successful in extending the provision of water and sanitation services in large urban areas. After the law came into force, drinking water coverage increased from 77% in 1993 to 92% in 2018. Despite these gains, rural areas and informal neighbourhoods in cities continued to be under-served.

The law states that utilities have the main responsibility to provide services and must comply with regulations, which include set tariffs and minimum service standards. However, the defining characteristics of rural areas and informal neighbourhoods (e.g. low income, dispersed population, located far from existing infrastructure networks) can make them seem unattractive as prospective investments, especially if penalties for non-compliance are ultimately much lower than the costs of providing services.

The Ministry of Housing and Cities therefore decided to develop additional incentives for the provision of services in these lower-income areas. These included direct subsidies for informal neighbourhoods (where providers are not utilities), as well as for adoption of technological solutions better suited to rural areas. The targeted incentives create the space for utilities to achieve the legal service standards required of them, but in a gradual and more flexible way, and encourages innovation in off-grid solutions.

Based on the new adapted regulations, the ministry is currently implementing two programmes working together with sub-national governments: one for rural areas ('Agua al Campo') and one for informal neighbourhoods ('Agua al Barrio'). Agua el Campo has a budget of 8.4 billion Colombian pesos, equivalent to US\$2.5 billion for the period 2020-2032.

The programmes's initial targets include increasing water coverage from 24% in 2018 to 40% in 2022, and increasing sanitation coverage from 10% in 2018 to 22% in 2022, in selected municipalities.

**Source:** Data supplied by Ministerio de Vivienda, Ciudad Y Territorio. Viceministerio de Agua Potable y Saneamiento

## PROMOTING BETTER SECTOR FINANCIAL PLANNING AND MANAGEMENT

As a starting point, all countries need to have financing strategies to achieve their water, sanitation and hygiene targets. And just as important, those strategies need to form the basis of relevant policy-making. Many countries do not have financing strategies to achieve their water and sanitation targets and the sector is often not prioritized.<sup>(9)</sup>

*There is often a disconnect between decisions made on investments, tariff design, cost recovery strategies, implementation timeframes and financing sources. The ministry of finance should only endorse substantive investment in sectors that are reformed or reforming. Realistic plans with strong political support provide stakeholders with greater confidence.*

Costs can be significantly reduced by making the sector more efficient and effective. This can be done by improving project appraisal: using standardized templates and criteria for appraisal, making on-lending conditional on optimal sizing of projects that take whole life-cycle costing into account, and providing dedicated funds for project development and appraisal.<sup>(47)</sup>

# CAMBODIA

## Costed national action plan 2019–2023

Cambodia has recently developed and launched a costed 'National Action Plan for Rural Water Supply, Sanitation and Hygiene' for 2019–2023. This marks a stepping stone for Cambodia's SDG 6 ambitions.

The costing of the plan updated previous sector models and added elements to improve forecasting. It adjusted unit costs for inflation, added new SDG-based service levels, and factored in costs needed for water, sanitation and hygiene institutional strengthening. It also budgeted for sanitation and hygiene promotional activities and made cost adjustments for increased climate resilience measures, as well as for adaptation to challenging environments. The results framework was also structured to align with national programme budgeting thresholds set out by the Ministry of Economy and Finance.

Analysis was conducted to identify sources of financing, including contributions from households, and identifying the most critical funding gaps, such as for rural water supply, providing a clear sense of resource mobilization requirements for achieving water, sanitation and hygiene SDG targets in Cambodia. An investment of US\$898.4 million was estimated to be required over five years for basic water supply, sanitation, behaviour change, and the enabling environment, though these estimates do not include personnel and other related overhead costs.

The Ministry of Economy and Finance has increased the budget allocation for rural sanitation from US\$327,000 in 2014 to US\$1.5 million. The Government is also gradually transforming its input-based budget system to an output-based budget system. Additional estimated household contributions amount to US\$150.6 million. Other sources of funding include grants from development partners (European Union, Agence Française de Développement, Asian Investment Facility, UNICEF and various NGOs working in the sector) and loans from the Asian Development Bank.

To date, 105 communes have increased their allocation for rural water and sanitation activities. Districts participating in the transfer of water and sanitation functions as part of the decentralization efforts have started to allocate funds from their 'District Investment Plans'. Some provinces have reported efforts and success in mobilizing community support for poor and vulnerable families, through social support mechanisms.

Cross-sectoral cooperation has also increased: funds for rural water supply, sanitation and hygiene have been included in a number of nutrition improvement programmes that are focused on children under five years old; the Ministry of Education, Youth and Sports have been allocating budgets for school water, sanitation and hygiene activities, including menstrual hygiene management; and the Ministry of Health has taken the responsibility for funding the improvement of water, sanitation and hygiene in health care facilities.

**Sources:** Government of Cambodia<sup>(48 to 50)</sup>

On the other hand, in the face of lean budgets and funding constraints, legislators often need external assistance to understand the water and sanitation sector in order to make informed decisions about where and how to target investments and prevent budget cuts. Ensuring that there are formalized spaces where civil society organizations and other experts can engage with the budget process at the national level can help ensure this information is provided. Holding these transparent conversations has the additional benefit of increasing accountability.<sup>(51, 52)</sup>

# MOZAMBIQUE

## The Budget Forum coalition to protect public funding for the sector

The Mozambique Budget Forum (BMF) is a coalition of Mozambican civil society organizations working on public finance transparency and accountability. Helvetas, Water Integrity Network and Swiss Development Cooperation have been supporting BMF since 2013.

In 2016, BMF's work with parliament contributed significantly to limiting priority sector budget cuts to only 1%, allowing the water, sanitation and hygiene sector to maintain its investments and core activities. BMF directly supported the parliamentary Planning and Budget Committee to scrutinize national budgets and present reasoned arguments to the Government for increased budget allocations to the water, sanitation and hygiene sector. BMF also recommended that the Government should set out Mozambique's national accounts in a clear, accurate and simple format, to make them more accessible for citizens. In 2017 the Government agreed, making the nation's 'State General Accounts' readily available, and publishing them alongside an accompanying simplified version, called 'Citizen Account'.

In 2018, BMF published an analysis of the 'Budget Execution Report' for the water and sanitation sector, which highlighted low allocation of funds and poor performance in terms of budget execution, with less than a third of the allocated budget used at the end of the third quarter – hugely frustrating for communities dependent on public funds for access to water services. The analysis also showed that the centralized way the budget was coordinated in the water sector undermined development outcomes, with two thirds of the budget going to national level projects, and less than 0.1% going to the country's poorest and most populous provinces of Niassa and Zembézia. Recommendations from these analyses now help frame discussions before the budget is tabled in Parliament, during consultations that are coordinated by the Ministry of Finance.

**Source:** Water Integrity Network





## SUPPORT AREA 2: MOBILIZE MORE FUNDING

While the previous section sets out how finance and sector ministers might work together to improve overall performance within existing funding and financing constraints, this section lays out how finance and sector ministers may expand the funding base itself – thus capitalizing on the sector’s strong economic benefits.

*Fiscal policy approaches have the potential to raise large amounts of revenue towards the achievement of universal access to water and sanitation services. Such approaches are mostly developed ‘outside’ the water sector, and centrally managed by dedicated departments within the ministry of finance. Ministers of finance have the political and the technical power to encourage sector reform and help structure funding solutions at scale that will leave a long-lasting legacy.*

## SETTING UP ADEQUATE COST RECOVERY POLICIES FOR THE SECTOR: TARIFF REFORMS

An important area where finance ministers have considerable influence is on cost recovery policies. Most countries have a cost recovery policy, but it is rarely enforced; tariffs that are too low coupled with inadequate cost recovery lead to the underfunding of maintenance.<sup>(53)</sup> Too often, the structure of tariffs is such that most customers fall into the lower segment of the tariff, even when they can afford to pay much more.<sup>(54)</sup> Inevitably, the tariffs are then not enough to cover the basic operational cost of the water company, which then needs government subsidies to survive.<sup>(6)</sup>

*If water and sanitation tariffs are low, the State can end up subsidizing the rich.<sup>(55)</sup> Finance and Sector Ministers can: review the level of tariffs; review the structure of tariffs (including affordability considerations for the poorest); identify the opportunities for cross-subsidies and improve efficiency.*

Policies and tariffs need to be structured to reflect and respond to differentiated market segments. In low-income areas and poor communities, while tariffs might be unaffordable if they reflect the full cost of service provision, richer/higher water using communities, or other customer categories (such as industry) could potentially cross-subsidize these groups if the policies were well-designed.

## BURKINA FASO

### A national tariff system

The National Office for Water and Sanitation (ONEA) is a state company responsible for providing services in Burkina Faso. In 1970, ONEA established the principle of ‘national equalization’ (péréquation nationale) for cost recovery and tariff setting that applied to 58 towns representing 27% of the national population. Tariffs are set according to consumer type (commerce, industry, household, etc.) and relative wealth of the locality so that cost recovery happens across an entire service area of the utility through cross-subsidization.

Financial balance is achieved because higher tariffs from commerce and industry offset the costs of providing below-cost tariffs for household connections and public standpipes within poorer regions of the service area.

The tariff-setting process is centrally coordinated by the Ministry of Finance, with ONEA presenting and discussing performance and progress annually to a committee. The process for tariff setting is based on analysis of total costs for providing services, applying five criteria:

- Financial efficiency for the service providers: is the income able to cover expenses?
- Economic efficiency: can demand be met?
- Equity: are tariffs fair?
- Simplicity: is the tariff system easy to understand?
- Preservation of water resources: do the tariffs contribute to rational consumption behaviour?

The system has made gradual service improvements possible, including expansion to smaller rural utilities and peri-urban areas. According to the first national accounts produced in 2017 using the WHO 'TrackFin' methodology, tariffs paid by users represented 59% of the total sources of funding for the water sector.

Source: ONEA<sup>(56)</sup>

## ALLOCATING MORE GOVERNMENT RESOURCES TO WATER AND SANITATION

Governments can consider allocating more taxes to water and sanitation. With the increased revenue, if allocations to the sector are further used to promote the rights of the poorest and most vulnerable and marginalized, then this will also provide the highest marginal rate of return.

*The first step for finance ministers would be to identify where funds are currently being allocated, and where there are obvious gaps to meet the Government's strategic long-term goals for water and sanitation.*

### MALI

#### How better sector financial reporting led to increased funding

In 2014, Mali committed to move towards allocating at least 0.2% of GDP to hygiene and sanitation, and 5% of the national budget for water and sanitation, in line with levels set out in the SWA framework.

Mali developed national accounts for water, sanitation and hygiene using the TrackFin methodology in 2015, with support from WHO, UNICEF and WaterAid. However, when the first TrackFin report was published in March 2017, covering the years 2012 to 2014, it showed that in 2013 and 2014, only 1.1% and 1.2% of the national budget respectively was allocated to water and sanitation.

The report also found that the total investment in drinking water from 2012 to 2014 represented only 46.5% of the funding needs that had been estimated for those three years, according to the 'National Plan for Access to Drinking Water' (PNAEP) adopted in 2006. The total amount of investments (funding from the Government, donors and NGOs) stood at 8.6 billion F CFA (equivalent to US\$14.7 million) in 2012 and rose to 35.5 billion F CFA in 2014 (equivalent to US\$60.9 million). It should come as no surprise that such a funding deficit coincided with a period of stagnation in the rate of access to drinking water between 2010 and 2014.

The minister in charge of water consulted with the minister in charge of sanitation, and in 2017 presented the TrackFin findings to the Cabinet Council, which is chaired by the Prime Minister. Discussions surrounding the need to financially strengthen the sector followed, and subsequently the Government decided to double the share of the national budget allocated to the sector, from 1.23% in 2017 to 2.62% in 2018, including plans for 100,000 water connections for the most marginalised communities in the district of Bamako.

Mali's third national accounts report on water, sanitation and hygiene are due in 2020, and the Government is set to continue with TrackFin reporting for the sector, integrating the process into established national monitoring systems.

Consultations between water and sanitation actors at the national level with government, parliamentarians, civil society, technical and financial partners, the private sector and research institutes were instrumental to the changes in approach. The broader discussions have also led to better inter-sector understanding and cooperation; ministries for Energy and Water, Health and Social Affairs, and Environment, Sanitation and Sustainable Development and the for Economy and Finance, have begun the process of formal, multilateral dialogue on the future financing of water, sanitation and hygiene sector.

Source: SWA Technical Committee in Mali

## INTRODUCING 'EARMARKED' TAXES (COMBINED WITH AWARENESS CAMPAIGNS AND RESOURCE MOBILIZATION)

Earmarked taxes, put simply, are a strategy that directs specific tax revenues to a particular expenditure purpose. Property taxes were the most popular in early 20<sup>th</sup> century Europe and North America for funding capital investments in water and sanitation, while South Korea used alcohol taxes to fund its water and sanitation service development. And in Singapore, taxes from casinos are used to support infrastructure investment.<sup>(57)</sup> Earmarked taxes are usually part of broader programmes of sensitization and mobilization of other sources of funds.

### SOUTH KOREA

#### Universal coverage within one generation

In 1961, sanitation coverage in South Korea was only around 2%, with 17% coverage for water. By 2012, the country achieved universal coverage for sanitation and water coverage stood at 98% – a remarkable turnaround. High-level political leadership was key, as part of a wider push towards nation-building, common well-being and modernity. The initial injection of funds came from foreign aid (mainly from the United States) from 1960 through 1975, which allowed for rapid industrialisation and economic take-off, including major water, sanitation and hygiene infrastructure investment.

Since the aid flow from the United States cut off in 1975, South Korea had to find other sources of domestic revenue for ongoing capital investment from 1976 onward. Subsidies and taxes were initially very important, with tariffs becoming increasingly important as per capita income rose. The national water company achieved operational cost recovery (including part of investment costs) by 2004, though income generation rates have decreased in recent years.

Currently, central government continues to provide substantial subsidies for water supply and sanitation to local government and other service providers. Tariffs alone are insufficient to cover the full operational costs of sewerage systems, and the Government has used a national alcohol tax specifically to generate the income meet the shortfall.

Sources: OD<sup>(58)</sup> and WaterAid<sup>(27)</sup>

### INDIA

#### A country-wide services tax earmarked for sanitation

The objectives of the Swachh Bharat Abhiyan (Clean India Mission, or SBM) included eliminating open defecation by constructing 100 million toilets in rural and urban India, and keeping streets and roads clean. India's nation-wide campaign ran from 2014–2019 and was led by the Prime Minister Narendra Modi.

Recent estimates indicate that the cash expenditure by the government, private sector, and the development community on assets and infrastructure under SBM to be between Rs 3,500–4,000 crore (US\$480 to US\$560 million) over five years, and that Rs 22,000–Rs 26,000 crore (up to US\$3.6 billion) was spent on supporting communications, education and information efforts.

One major revenue stream was an earmarked tax of 0.5% on all taxable services, effective from November 2015. This tax was levied, charged, collected and paid to the Government, independent of existing service tax – so was charged as a separate line item. Between 2015 and 2018, the tax raised Rs 20,632 crore (US\$2.87 billion).

Sources: Various<sup>(59 to 63)</sup>

## COSTA RICA

### 'Wastewater Discharge Environmental Fee'

In Costa Rica, the Wastewater Discharge Environmental Fee (CAV in Spanish) was established in 2008 by the Ministry of Environment and Energy (MINAE) under the 'polluter pays' principle, where those who produce pollution bear the costs of managing it, to reduce damage to the environment.

This fee promotes cleaner production on industries and higher efficiency in wastewater treatment plants, because the amount to pay is directly related to the actual effluent discharged in terms of flow, quality and compliance, with effluent limits set in the national regulations. The amount to be paid is reduced 25% when the effluent complies with regulations, or increases by 3.5 times if the effluent does not comply with standards.

The fee promotes cleaner production for industries and higher efficiency in wastewater treatment plants, because the amount to pay is directly related to how clean any effluent produced is. The proceeds of the fee are allocated to the water and sanitation sector for a range of projects, including improving domestic sewage and wastewater treatment, supporting cleaner production, monitoring effluent quality and improving environmental education. Between 2016–2018, the fee collected led to investments of US\$1.2 million, directly helping to reduce gaps in sanitation access in the country, especially for operators in rural areas with lower financial capacity for sanitation projects – therefore supporting national efforts to 'leave no one behind'.

Source: SWA<sup>(64)</sup>



## IMPLEMENTING CROSS-SUBSIDIES FROM OTHER SECTORS AND UNIVERSAL SURCHARGES

*Finance ministers can design surcharges from other sectors, or on existing customers, to mobilize additional funds to facilitate universal access to water and sanitation services.*

Countries and regions with large tourism sectors have explored the use of environmental taxes charged to tourists that can support financing of sanitation and solid waste management. Other countries have introduced levies on consumers to support the sector.

### ARGENTINA

#### Universal environmental surcharge

Following the 1997 renegotiation of the water concession contract in Buenos Aires, the 'infrastructure charge', which had been applied to new users and was unaffordable for many, was replaced with a bimonthly 'Universal Service and Environmental Improvement' fee (SUMA), payable by all consumers.

Part of the charge was for plugging funding gaps for service providers, and part was to fund environmental projects. The change was initially unpopular with existing (mostly middle-class) consumers, who saw their bills rise, but the introduction of SUMA resulted in significantly reduced service connection charges. Together with interest-free instalment payments over five-years, this made connections far more affordable for low-income households, and saw the number of new connections rise steadily.

Source: World Bank<sup>(65)</sup>

## SUPPORT AREA 3: INCREASE REPAYABLE DOMESTIC FINANCE

Market finance will, in most cases, be more expensive than the sources of finance that the sector has become reliant upon to date – predominantly grants and concessional hard currency finance from donors and governments. This section focuses on mobilizing domestic finance as a strategy to avoid foreign exchange risk, which can cause a utility to collapse if exchange rates change in a way that is unfavourable.<sup>(66, 67)</sup> It also helps countries to reduce dependency on foreign aid.

*For countries with adequate regulation and institutions, finance ministers can take actions to increase new domestic financing (i.e. repayable finance or market finance).<sup>(68)</sup> Within the boundaries of their fiscal space, finance ministers can allow borrowing by service providers and/or decentralized government institutions and can facilitate the market for repayable domestic finance.<sup>(34)</sup>*

While gaining access to market finance is essential to delivering the SDGs, these higher market-based financing costs will need to be covered by increased efficiency, more subsidies or higher tariffs – or a combination – in order to keep the additional borrowing costs affordable.

*Governments can employ initiatives outlined in this section to soften the impact of accessing market finance by blending market finance with concessional finance, and/or reducing the level of risk to lenders, thus attracting better borrowing terms.*

## USING GUARANTEES TO DE-RISK AND MOBILIZE PRIVATE DOMESTIC FINANCE

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”.<sup>(69)</sup>

Guarantees can entice new lenders into the market and facilitate lower interest rates or longer tenures from existing lenders. They can improve the affordability of the finance by reducing its impact on a utility’s cost recovery requirements.<sup>(70,71)</sup>

## THE PHILIPPINES

### Water Revolving Fund and a new unified financing framework

The Philippines Water Revolving Fund (PWRF), established in 2008 with support from USAID and JICA (Japan’s development agency), provides a compelling case for blended finance to help expand water and sanitation services. The PWRF helped water service providers mobilize commercial financing from local banks at a time when public resources were highly insufficient. By 2014 more than US\$234 million in loans had been mobilized for 21 water and sanitation projects, with around 60% of the finance mobilized coming from private banks. The fund has meant an estimated six million people have benefited from new or improved water supply and wastewater systems.

The PWRF provided loans to local government units and water districts by on-lending concessional funding sourced from JICA through the Development Bank of the Philippines, blending it with funds from domestic private commercial banks and domestic public funds.

Guarantees played a critical role in the structuring of the PWRF, with JICA’s concessional loan to DBP backed by a sovereign guarantee from the Government of the Philippines Department of Finance, and the private banks

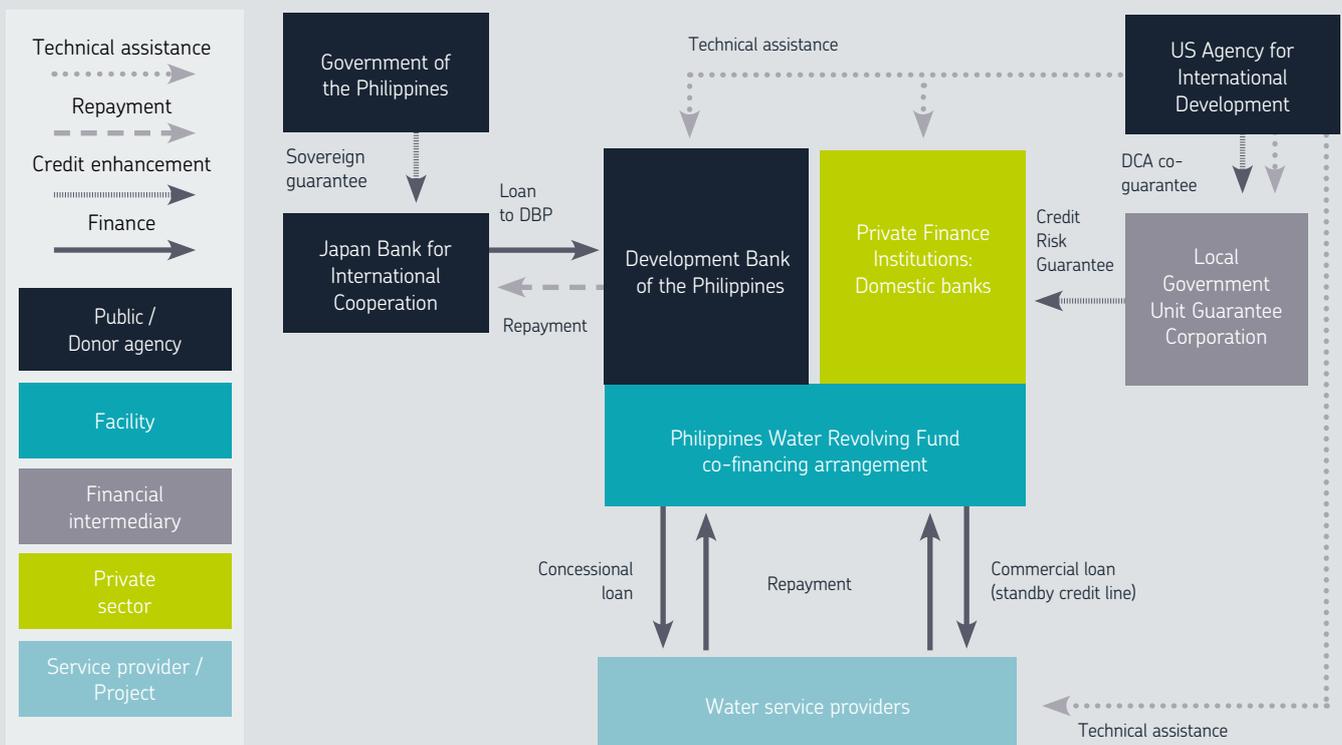
partially guaranteed by the Local Government Unit Guarantee Corporation, a private third-party guarantor, which itself was backed by a partial guarantee from USAID's Development Credit Authority (DCA). In total, USAID DCA provided almost US\$5 million in guarantees, which helped reduce the commercial banks' credit risk exposure, and increased confidence to lend, albeit selectively, to creditworthy water service providers. Another key feature of the facility is the liquidity risk cover provided through a standby credit line, with a take-out feature offered to borrowers who could not afford the short tenures. This feature helped increase the tenure from the usual seven years to 15 years, or sometimes longer.

Technical assistance, a critical component of the PWRF, was provided by USAID to the Development Bank of the Philippines and local commercial banks to build their capacity to appraise water, sanitation and hygiene projects and evaluate risks and opportunities. This facilitated approval of water, sanitation and hygiene loan applications and accelerated loan disbursements. USAID also provided technical assistance to the water service providers to improve governance and capacity, and review project feasibility studies that helped with improving bankability. Total cost of USAID technical assistance for seven years was US\$6.8 million and JICA's total loan to the Development Bank of the Philippines amounted to US\$67.8 million, as of 2017.

The PWRF benefited greatly from effective donor coordination between JICA and USAID, which helped to clarify roles and responsibilities of each party. Senior leadership from both USAID and JICA led discussions with relevant government ministers, and participated fully in steering committee meetings, signalling the importance of the initiative for all parties involved. The last year that the JICA loan was utilized was 2017, marking the end of the PWRF, but its legacy lives on under the 'Unified Financing Framework', the Philippines's comprehensive financing policy for the water sector.

Below is a flow chart diagram illustrating how the PWRF was organized.

Sources: World Bank<sup>(72)</sup> and USAID<sup>(73)</sup>



## IMPROVING SECTOR PERFORMANCE THROUGH ASSESSMENT OF SERVICE PROVIDERS CREDIT WORTHINESS

Few low and middle-income countries have yet developed credit rating systems that could provide potential investors with a base for determining if a water, sanitation and hygiene borrowing entity is credit worthy.

*Financing ministers could support the introduction of service provider credit ratings as an additional method to improve understanding on borrowing opportunities. Coupled with other approaches described in this section, this has the potential to have a catalytic effect.*



# INDONESIA

## Programme on results-based financing for efficiency improvements

Financed by the World Bank, Indonesia's 'National Urban Water Supply Project' (NUWAS) supported the establishment of an overarching framework for national urban water supply development. The project worked with Indonesia's central government to design a structured and systematic way to help local governments (LGs) and utilities to improve their water supply service delivery.

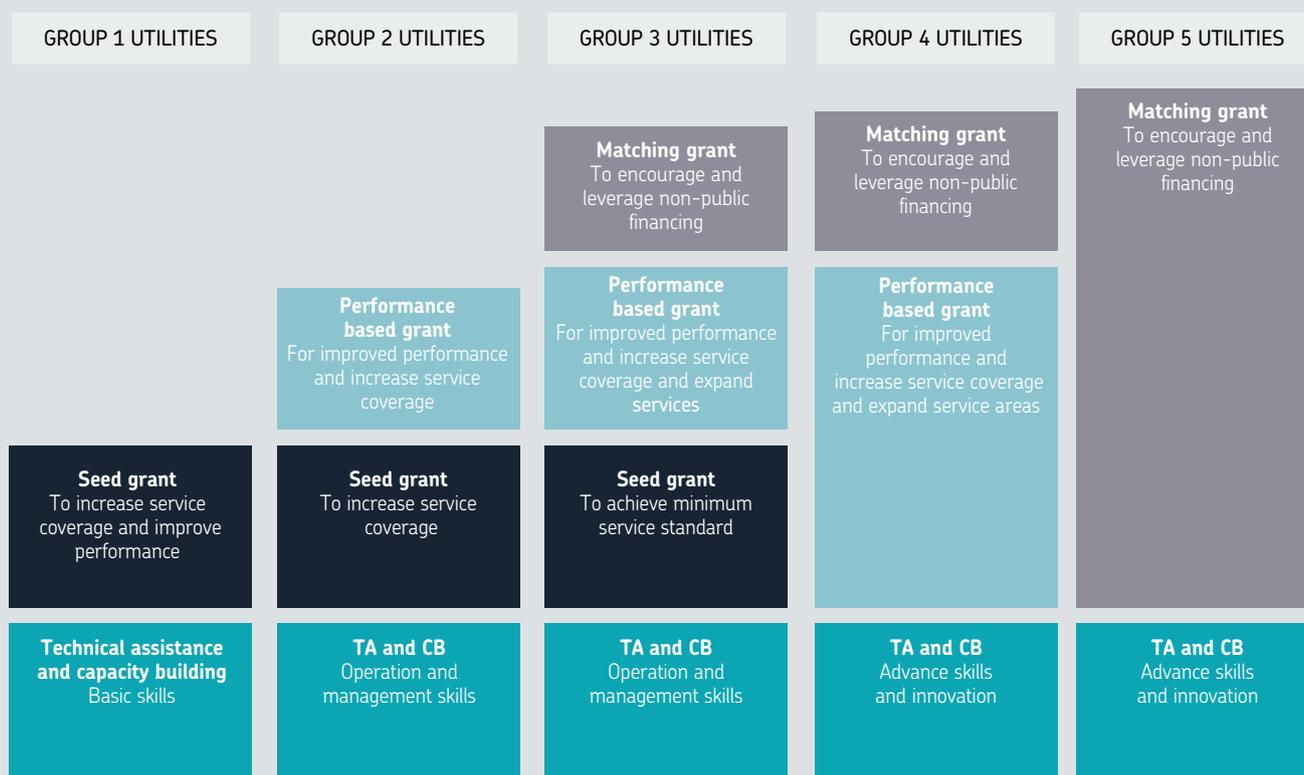
Around 400 target local governments and utilities were classified in five groups according to their performance (see below). A customized support package was provided according to each group, which aimed to lift the service provider to the next category of support – with the end goal being for the utility to be able to readily access non-public sources of financing. The financing approach uses a mix of performance-based grants and matching grants to provide strong incentives to the utilities.

As a utility advances in capacity (moves from 1 towards 5 in the graph below), the mixture of funds evolves. Full grants, known as seed grants, give way to performance-based grants, which only provide funds upon proof of results. Performance-based grants give way to matching grants, which are not awarded until the utility has identified commercial lender to match the amount of the grant. By the time a utility has reached Group 5, it only receives a matching grant and must source half of its needs from a commercial lender. This process of moving from 1 to 5 is intended to build the capability, comfort and confidence of utilities applying for commercial loans.

As of 2019, 15 utilities were in the process of entering arrangements and many of these are seeking matching grants with total investment costs estimated in over US\$600 million. The programme is facilitating commercial finance solutions in Indonesia through capacity building of utilities to become credit worthy. Other utilities are looking to combine matching grants with commercial finance from local banks.

Source: World Bank<sup>(57)</sup>

### GRADUAL AND CONTINUOUS IMPROVEMENT



## KENYA

### Shadow credit ratings for utilities to attract domestic and international finance

The Kenyan regulator, WASREB, collaborated with the World Bank to develop a mechanism to assess utility creditworthiness. In 2011, given the non-existence of formal credit ratings by accredited agencies, 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.

The regulator did a subsequent shadow credit ranking in 2015 and have committed to repeat these rankings internally on a regular basis. It has helped inform commercial lenders' decision-making processes, which use the rankings to make loans to utilities. As of 2019, there were around 50 projects with commercial lending of US\$25m and over 250,000 beneficiaries of new or enhanced services. Creditworthy utilities are encouraged to borrow for investment – the repayment rates are also excellent, with financing and technical support coming from multiple sources (USAID, KfW, DGIS).

An interesting outcome in terms of aid effectiveness and targeting is that one bilateral agency denied a grant to one Kenyan county that had applied to them for funding, because the report clearly showed a healthy utility with plenty of cash and ability to borrow. The funds were instead diverted to another county which was in greater need of financial support.

Source: World Bank<sup>(74)</sup>

## WORKING WITH PRIVATE SPONSORS TO RAISE FINANCE

Public private partnerships (PPPs) can mobilize private equity and market finance to invest in the sector and repay loans through long-term agreements. These can be concessions for existing networks or 'build-operate-transfer' contracts (BOTs) for new assets. PPPs do not always require borrowing by the public entity if it is credit worthy or the project revenues can be sufficiently ring-fenced.<sup>(75)</sup> PPPs can also bring the benefits of innovation and technology, such as for desalination and water reuse, where they have been employed extensively and successfully in the Middle East.

PPPs have, however, a mixed reputation in the water and sanitation sector,<sup>(76, 77, 78)</sup> particularly where they sought to turn around failing utilities in only a short period of time or project risks had not been well-allocated. There are examples of well-structured, successful PPPs in the sector.<sup>(79, 80, 81)</sup>

*Success for the approaches in this section requires a sector that has a strong enabling environment and well-structured existing PPPs. In many countries, PPPs have mobilized new sources of financing and delivered their expected results. They are one option for finance ministers to consider.*

## INDIA

### Private sector investments in wastewater treatment

The Government of India and the World Bank developed a PPP hybrid annuity model, in order to attract private sector investments into wastewater treatment to reduce pollution in the Ganges river. Under the partnership, the private operator designs, builds, finances, and operates the plants for 15 years. The government finances up to 40% of the construction cost, in phases according to construction milestones. The remaining 60% is financed by the private operator and then repaid through annuity payments over the period of operations, in addition to performance-based operating payments. This innovative hybrid annuity model has been scaled up for all the cities in the Ganges basin, involving 24 contracts, and is expected to mobilize US\$400 million in private sector financing.

Source: World Bank<sup>(82)</sup>

# RWANDA

## City of Kigali bulk water supply through a PPP financing mechanism

The population of the city of Kigali is over one million, and rising. Such population growth, coupled with climate change (water scarcity during dry season and flooding in rain season) are among the main pressures on water supply in the city.

To begin to address the challenge this presents, the Government of Rwanda has prioritized the water supply sector, setting an ambitious target of supplying universal basic water services by 2024, as reflected in the 'National Strategy for Transformation' (NST).

Among the many different water supply projects being implemented nationwide, the Government of Rwanda has entered a PPP with METITO company, to supply drinking water in the City of Kigali. The PPP is being implemented on a finance, build, operate and transfer (FBOT) basis. METITO paid for the costs of infrastructure construction with their own capital and will recoup the investment cost through a 25-year concession agreement, during which time they will supply water at a rate agreed with the national regulator (RURA).

The project will supply 40,000 m<sup>3</sup> of water per day, and its total investment is around \$US60 million, with Metito's total equity stands at US\$19.4 million and its debt at US\$40.6 million – a 68:32 debt to equity ratio. The concession will end in 2044.

Source: World Bank<sup>(83)</sup>

## STRENGTHENING FINANCIAL MARKETS USING 'MUNICIPAL DEVELOPMENT FUNDS' OR SECTOR REVOLVING FUNDS

Municipal development funds (MDFs) are set up by national governments to lend to local governments for infrastructure development. These types of funds are considered an entry point to creating systems at municipal level that can eventually borrow from local or international capital markets. By providing loans to projects identified by local governments, MDFs use similar criteria to multilateral or regional development banks, but are able to fund smaller projects at a more local level.

More than 60 countries have established MDFs, generally backed by international agencies. Examples include Bolivia Servicio Nacional de Desarrollo Urbano; Colombia Findeter; Jordan Cities Villages Development Bank; Morocco Fond d'Équipement Communal, Nepal Town Development Fund; Philippines Municipal Development Fund Office; Senegal Fund of Local Communities; Sri Lanka Local Government Loans Fund and Vietnam Local Development Investment Funds.<sup>(84)</sup>

*Municipal development funds are an option for finance and line ministers when the main objective is to strengthen the technical capacity of local government and experts to appraise projects. However, to date they have only managed to replenish the funds with commercial finance in middle- and high-income countries.*

There are two types of MDF models: they either work as substitutes for government grants to local authorities, or act as a bridge to private credit markets.<sup>(85)</sup> Under the first model, which is funded by donors and the national government, lending is provided to the local authority at concessionary rates, often in conjunction with subsidized loans and grants (again, from donors and/or central government). This helps to stimulate a market for domestic finance and introduces local authorities to municipal lending. Because the market is relatively weak, the MDF can seek to incorporate investment priorities from the central or state government level, and work with the local authority to ensure strong project preparation.

Under the second model of bridging to private credit markets, the MDF works to strengthen both the municipal and financial sectors to support transactions between the private sector and municipalities.

Under this structure, the MDF tends to lend at market interest rates, and works with commercial banks and other private sector lenders in its funding decisions. In addition, the MDF usually requires that private lenders assume the credit risk of the municipal loans, to help the municipality develop a credit history.

## CZECH REPUBLIC

### Municipal funds and guarantees for municipalities

In the Czech Republic, the municipal development fund (MDF) borrows from international markets with a sovereign guarantee and lends these to domestic commercial banks, who then lend to municipalities. For a transaction to happen, a municipality must conduct all the project identification and preparation, while the commercial banks conduct the credit analysis and accept repayment risk. The MDF, meanwhile, confirms the creditworthiness of the commercial banks to which it lends, and makes capital available to a range of banks to foster competition.

Source: World Bank<sup>(85)</sup>

Dedicated water and sanitation sector financing can be structured either as sinking or revolving funds, depending on their objectives. A sinking fund disburses a share of its capital each year over a defined period of time until it sinks to zero. A revolving fund is replenished or augmented on a regular basis, usually through fees, taxes or levies.

These funds are often created for a social purpose as part of broader sector reform. These approaches and mechanisms are meant to support municipalities and utilities with a set up that allows funds for the sector to be disbursed more rapidly and flexibly than funds made available through the budgeting process.

*National funds, when set up in less-than-ready sectors still undergoing serious reform, face challenges similar to those faced by the proliferation of other funds – a lack of 'good' projects or channels for disbursing the money.*

## BULGARIA

### FLAG national revolving fund

Bulgaria's national FLAG revolving fund was established in March 2007 by the Council of Ministers, with funding provided through the national budget. Its aim is to provide financial assistance to municipalities, and to do this by attracting as much funding as possible from the EU's 'Structural Funds and Cohesion' fund.

FLAG is an independent legal entity with the status of a commercial company (joint stock company). It is structured as a revolving mechanism for financing development and implementation of economically and financially viable projects in the area of municipal infrastructure – including water and sanitation – and for supporting the administrative capacity of municipalities with a view to attracting EU funds.

FLAG is designed as a financial mechanism to overcome the problem of ensuring funds are available to municipalities when they need them; when they develop project proposals or finance-approved projects in the framework of the operational programmes co-financed by the EU. In 2016, the total equity of the group including share capital, reserves and retained earnings amounted to BGN 99 million, equivalent to approximately US\$56 million.

Source: FLAG<sup>(86)</sup>

## SUPPORTING THE NEXT GENERATION OF MICROFINANCE APPROACHES

One method of market creation that is gaining traction is the encouragement of a dedicated microfinance industry which mobilizes private domestic finance for water and sanitation access from would-be consumers. These households are typically dismissed as either incapable or unwilling to pay, requiring government or donor support. However, analysis indicates that the poor often pay more than wealthier people to satisfy their basic needs,<sup>(67)</sup> suggesting the real barrier is the availability of relevant financial tools and tailored services. The microfinance industry as a whole has seen solid growth over the past several years and had an estimated credit portfolio of \$121.4 billion in 2018,<sup>(68)</sup> which suggests a lot of potential if effectively harnessed.

A defining characteristic of lower-income households is a lack of savings to invest in up-front costs. Microcredit can therefore be a powerful way of addressing this problem; by providing a channel for many poor households to finance their own access, it can lead to more targeted and therefore efficient use of scarce public funds.

Microfinance is not just a good standalone technique to mobilize domestic resources, but also a strong complement to government subsidy programmes.

### THE POOR ARE NOT EQUALLY POOR



Source: Water.org

The Government of India encouraged the use of microfinance in its formal guidelines for its national cleanliness campaign, 'Swachh Bharat Abhiyan' (SBM). A notable feature of the SBM was an 'incentive' of 12,000 INR (roughly US\$171) to eligible households for toilet construction, with the households typically required to provide proof of construction before they could access the funds. In such cases, microcredit served as a bridge for poor households. Even more recently, the Government of Ethiopia highlighted the critical role of microfinance in Phase II of its 'OneWaSH' national programme, launched in March 2019.

Governments can have grant programmes matching microfinance to ensure affordability of loans. Many national budgets make efforts to drive commercial finance towards development sectors via the designation of key sectors as 'priority'. A 2015 revision of 'priority sector lending' in India led to water and sanitation being included in this designation for the first time, which increased the appeal of lending for the water sector to commercial banks and the microfinance institutions (MFIs) that borrow from them to on-lend to low-income households. Other governments could follow suit and elevate the importance of building markets for water and sanitation locally.

## PHILIPPINES, PERU, KENYA AND INDIA

### The influence of the enabling environment on microfinance

Water.org has been supporting the microfinance market for water and sanitation since 2004 by encouraging financial institutions across 13 countries to offer specialized water, sanitation and hygiene microloans. Training and technical assistance is provided alongside a small grant that goes towards project preparation and monitoring for institutions willing to try out dedicated water, sanitation and hygiene lending, but no capital for lending is provided. These incentives are needed to address the reluctance that institutions often feel about lending for a social good rather than something they perceive to be income-generating. Similarly, utilities often need to be incentivized to expand their networks into low-income communities and create payment plans to accommodate poorer households.

Those efforts have reaped impressive results globally: as of December 2019, more than US\$2.2 billion had been disbursed through loans, representing access to water and sanitation for nearly 28 million people, 89% of whom live on US\$6 per day or less.<sup>ii</sup>

	Philippines	Peru	Kenya	India	Global
Year started WaterCredit	2014	2014	2005	2004	2004
Number of loans	886,323	678,368	948,075	2,681,517	6.1 million
Value of loans (USD)	\$157,350,165	\$811,586,283	\$409,138,616	\$556,325,664	\$2.2 billion
People reached	3,842,030	2,466,007	3,749,795	11,951,270	28 million
Average loan size	\$178	\$1,196	\$432	\$207	\$365
Female borrowers	98%	42%	55%	99%	87%
Average interest rate	19%	28%	15%	18%	24%

From an enabling environment standpoint, India's five-year national sanitation campaign can be assumed to be a critical factor in the country's demonstrable success, providing data which paved the way for microlending in countries such as Peru and the Philippines.

Conversely in Kenya, finance policy hindered potential. In September 2016, Parliament capped interest rates chargeable by banks at no more than 4% of the base rate set by the Central Bank of Kenya. While this cap was set with the good intention of reducing the cost of borrowing, in practice this limit prevented banks from covering their operational costs, let alone earn any revenue – leading to a collapse of credit to micro-, small-, and medium-sized enterprises, and reduced financial intermediation.<sup>(89)</sup> The cap was lifted in November 2019.

Source: Water.org

<sup>ii</sup> While the majority of Water.org's work has targeted households at under US\$3.10 per day (adjusted for Purchasing Power Parity), its target increased to US\$6 per day on account of increased and projected growth in the emerging economies of Latin America.

## SUPPORT AREA 4: ENCOURAGE INNOVATION AND LEAST-EXPLORED NEW APPROACHES

The water and sanitation sector must also be more creative and ambitious if it is to fill the financing gap that will be needed in the coming years. In the same way that governments use subsidies to develop new markets for a greener economy, such as solar panels and electric cars, public funds can be harnessed to help create local currency lending/borrowing relationships which currently do not exist.

Such domestic relationships are currently rare in the water and sanitation sector for a variety of reasons. In the first place, the lack of established collaboration to date means that lenders and borrowers do not understand each other. But there are also other more practical reasons, such as a lack of financial markets and regulators, too many checks on sub-sovereign borrowing, and inadequate tenures due to perceptions of high risk.<sup>(90)</sup>

*Finance and sector ministers can collaborate to explore and develop new and innovative financing approaches. Public finance might stimulate creation of a new market segment, using public funds to subsidize market creation (a long-term benefit) rather than subsidizing asset creation (a one-off benefit). However, new financing approaches and opportunities should only be attempted alongside initiatives to reform the sector, demonstrating visible progress in improving the financial health of the sector and its institutions.*

## ACCESSING CLIMATE FUNDS

The Green Climate Fund (GCF) is a global fund created to support the efforts of low- and middle-income countries to limit or reduce their greenhouse gas emissions and adapt to climate change. It aims to deliver equal amounts of funding to mitigation and adaptation.<sup>(91)</sup> The GCF launched its initial resource mobilization in 2014 and gathered pledges worth US\$9.3 billion. These were supplemented in October 2019 by 27 countries pledging to replenish the GCF by a further US\$9.78 billion equivalent for the next four years.

The total approved GCF financing for all projects to date is US\$5.21 billion for 111 projects. However, water and sanitation projects captured only US\$328 million of financing for eight projects – just under 6 per cent of the total.

There would appear to be significant opportunities to mobilize GCF grants to improve energy efficiency in the sector (mitigation) and address the impacts of too much, or too little, water as a result of climate change (adaptation). Amongst the GCF-funded water and sanitation projects approved to date, the vast majority received grants of between 50 per cent and 75 per cent of total investment costs – a significant proportion for low- and middle-income countries.

## KIRIBATI

### South Tarawa water supply project

Kiribati is one of the most remote and least developed countries in the world, and faces significant challenges due to its vulnerability to climate change. South Tarawa's water supply is almost entirely dependent on underground freshwater lenses (where freshwater sits above denser saltier water); the quality and quantity of which are seriously threatened by climate change-induced heavy rains and prolonged drought. Should such extreme events occur simultaneously or in quick succession, they can reduce the lenses' yield to zero – for periods of up to five years. Given this, the lenses cannot be relied upon as the main source of water in the future. The South Tarawa water supply project aims to reduce the climate vulnerability of the entire population of South Tarawa by providing them with a reliable, safe, and climate-resilient water supply.

The project is expected to benefit 62,298 people, and requires a total investment of US\$58m, of which US\$29.4m (50.7%) will come from the GCF.

Source: Green Climate Fund<sup>(92)</sup>

## HARNESSING NON-TRADITIONAL INTERNATIONAL INVESTMENT: SOCIAL IMPACT BONDS AND OTHER METHODS

Social impact bonds are contracts with the public sector, with payment-by-results contracts that leverage private capital to achieve better social outcomes. The name is slightly misleading; it is not a 'traditional' bond (e.g. with coupon rates and defined maturities). Repayment and return-on-investment only take place if the desired social outcomes are achieved. If the objectives are not achieved, investors receive neither a return nor the repayment of the principal. Because they are not traditional bonds, they are not affected by interest rate risks or other market risks, but they are subject to default and inflation risks. Determining what 'success' looks like for a social impact bond can also be challenging.

*Social impact bonds are similar to private investments in a start-up, but in this case the start-up is a programme of the public sector and the investors are not only interested on financial returns, but also on the social impact of the investment. This is a new type of vehicle that finance and sector ministers can explore. Social impact bonds can be a way to raise money for specific government programmes at lower interest rates for borrowing. Since the risk falls mostly on who invests the money, this option is lower-risk for the government.*

Social impact bonds are quite new. The first social impact bond was issued in 2010 by Social Finance Ltd. So far, they have only been issued by the public sector, but they could also be issued by private organizations, for instance, as a way to expand corporate social responsibility.<sup>(93)</sup>

Social impact bonds are only one type of non-traditional mechanism to channel international private investment into the water and sanitation sector. While the complexity of designing these mechanisms may seem prohibitive, early adopters are starting to show results and demonstrate how first-phase efforts can evolve within a relatively short time into viable market opportunities.

## CAMBODIA

### First sanitation development impact bond

The Government of Cambodia aims to eliminate open defecation by 2025, five years ahead of the SDG target.

In November 2019, the first social impact bond for the sector was issued: nearly US\$10 million to move 1,600 villages in six provinces to open defecation-free status by 2023, improving health in rural communities – especially for children.

The Stone Family Foundation provides the upfront investment (taking all the risk), with USAID providing up to \$10 million in outcome funding to the Stone Family Foundation only where results are achieved. iDE is the implementing NGO, receiving the funding from the Stone Family Foundation.

The impact bond has been facilitated with the guidance of Social Finance, who issued the first-ever social impact bond in 2009.

Source: iDE <sup>(94)</sup>

# WATEREQUITY

## Leveraging private international investors to increase domestic appetite for the sector

WaterEquity, incubated by Water.org, provides debt funding to financial institutions and water and sanitation enterprises at the critical tipping point moment when their ability and appetite to scale up exceeds the finance they can secure locally.

Attracting a range of investors from around the world, including foundations, institutional investors, as well as high-net-worth investors and their advisors, WaterEquity's funds invest in a portfolio of high-performing financial institutions and enterprises in emerging markets to deliver access to water supply and sanitation to families living in poverty.

In 2014, WaterEquity launched its inaugural impact investment fund – WCIF1 – an US\$11 million fund providing loan capital to high-performing microfinance institutions in India to scale their water and sanitation loan portfolios. In April 2017, WaterEquity went to market with a US\$50 million impact investment fund – WCIF3 – to invest in financial institutions and water and sanitation enterprises in India, Indonesia, Cambodia, and the Philippines. The fund aims to reach 4.6 million people with safe water or sanitation over its seven-year term.

To attract additional financing from investors, WCIF3 deployed a tiered equity structure which is covered by a first loss guarantee for up to US\$5 million. WCIF3 is unique in that it uses multiple zero- and low-interest secured and unsecured loan facilities to enhance the fund's core activities. The substantial use of blended risk mitigation instruments in WCIF3's capital structure allowed the fund to meet the risk-return requirements of its investor base.

WCIF3 borrowers' loans typically have a three-year tenure, and can be redeployed for an additional three years. The first round of borrowers were able to grow their water and sanitation loan portfolios from less than 2% of their overall business at the start, to over 10% three years later.

Source: Water.org





## 4. BRINGING IT ALL TOGETHER

The opening sections of this document highlighted the financing gap that needs to be overcome to deliver the promise of sustainable water and sanitation for all by 2030. Countries have committed to the ambitious SDG targets – and yet the world is unlikely to achieve them, without a fundamental shift in the way that the water and sanitation sector is governed and financed.

It is also clear that precious public money is being wasted in the sector at the moment: service providers that can't cover basic costs and need regular financial injections while providing poor services; inefficient subsidy structures that incentivize 'build-neglect-build' approaches and benefit the wealthier; tariff systems which are inadequate; public financial management systems with no accountability or performance reviews.

This Handbook shows that this does not have to be the case. It provides a four-part 'framework', within which finance ministers, and their sector counterparts, can organize their activities. Importantly it highlights good practices and workable solutions on how countries can, and have, addressed these challenges.

*The Handbook shows how ministers of finance can have a significant influence in the water and sanitation sectors, through finance policy. The choice of approaches, and their success, depends on the local finance sector, the water and sanitation sector, the counterpart line ministries, and ultimately the overall political climate for sector reform.*

Which areas to focus on, and what actions a finance minister might take to help improve water and sanitation in their country, depend strongly on how prepared or reformed the existing sector is. Water and sanitation sectors can usually be described as being in one of three categories:

1. If the sector is **already reformed** with good governance and incentives, then finance ministers may help to encourage financial markets supporting the sector to develop, whilst supporting continued efforts to improve efficiency.
2. If the sector is **reformable** – and willing to reform – finance ministers may support those reforms with financial incentives to deliver better governance, efficiency and encourage easier access to market finance.
3. If the sector is **not reformable** – as a whole – then finance ministers can provide targeted support to those parts that are willing to improve (e.g. urban utilities in larger towns) through well-designed incentives and subsidies.

*Water, sanitation and hygiene financing will have greater impact if applied strategically. This means as part of a broader package of reforms, aimed at improving sector efficiency and governance and increasing sector funding sources. Such a strategy will lay solid foundations for generating sufficient water, sanitation and hygiene service revenues that can repay commercial financing over time.*



# CALL TO ACTION

The obligation of adopting solutions that can deliver universal access to sustainable water and sanitation services lies, in the first instance, in the hands of political leaders. If such leadership can be mobilized, then this Handbook provides the framework for considering the actions that can be taken to address the deep-seated financial challenges of the sector.

Finance ministers, working alongside water and sanitation sector ministers and other line ministers, can create a new financing environment. One that brings together a set of actions that are consistent with realizing the ambitions of their government, and that reflect the needs and hopes of their people.

# ACKNOWLEDGEMENTS

This Handbook has been written by Catarina Fonseca, Bill Kingdom, Victoria Delmon and Lesley Pories. The authors would like to thank the following reviewers and contributors:

Edward Abdurrahman, Ministry of Public Works and Public Housing, Indonesia

Adriyanto, Ministry of Finance, Indonesia

Rajesh K. Advani, World Bank

Catarina de Albuquerque, SWA

Didier Allely-Fermé, Consultant

Abhishek Anand, Water.org

Heather Arney, Water.org

Matt Austin, Water.org

Robert Bain, Joint Monitoring Programme

Jessica Bernard, WaterEquity

Djoouro Bocoum, National Focal Point SWA

Sory Ibrahima Bouare, World Health Organisation Mali

Fatoumata Maiga, Mali

Yaya Boubacar, Direction Nationale de l'Hydraulique du Mali

Tabalaba Boureima, Coalition Nationale de la Campagne Internationale pour l'Eau Potable et l'Assainissement

Heloise Chicou, SWA Advisor

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Monsieur Michel Hamala SIDIBE, Ministre de la Santé et des Affaires sociales, Mali

Muyatwa Sitali, SWA

Tom Slaymaker, Joint Monitoring Programme

Stef Smits, IRC

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Sambou Wague, Ministre de l'Energie et de l'Eau, Mali

Thom Woodroofe, Asia Society

# GLOSSARY

For the purposes of consistency and clarity on terminology, below is a list of terms, setting out their intended meaning in the context of this document.

**Blended finance** is defined by the OECD and World Economic Forum<sup>(95)</sup> 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.<sup>(35)</sup> blended finance is the strategic use of public taxes, development grants and concessional loans to mobilize private capital flows to developing markets.

**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 rates.

**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.<sup>(96)</sup>

**Cost recovery** measures the extent that user fees and any other direct contributions, for example voluntary labour, are adequate to meet service costs. Financial sustainability describes the extent to which society as a whole (including international society) contributes in a committed, long-term manner to support services, either through full cost recovery through user fees or through a combination of user fees and societal contributions.

**Funding** is an amount of money provided by an organization or government (or customers) on the basis of an agreement. These are primarily made up of the ‘3Ts’: taxes, tariffs and transfers (see Section 2).

**Financing** is an amount of capital or the sum of money provided to an organization with the expectation of repayment. Organizations are liable to pay back the capital amount along with a certain percentage of interest. Financing can be commercial or concessional (see Section 2).

**Overseas development assistance** (or ‘ODA’) is defined by the OECD as government aid that promotes and specifically targets the economic development and welfare of developing countries.

**Repayable finance** refers to finance that needs to be paid back. It includes:<sup>(90)</sup>

- Commercial or concessional loans.
- Bonds. This is 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.
- Equity. An ownership interest in a company. Buyers of equity shares provide capital in exchange for expected returns in the form of dividends and increases in share value, both of which would depend on the company’s financial performance. Equity shares can be publicly traded on a stock exchange or privately held.

**Tariffs** are defined as user fees and contributions. They include recurrent fees that users pay for receiving a drinking-water or sanitation service, such as monthly water bills. They may also include contributions made by users to infrastructure development.<sup>(29)</sup>

**Taxes** refer to funds raised by governments (national or subnational) through the tax base, which are subsequently spent on drinking-water and sanitation service delivery.<sup>(29)</sup>

**Transfers** are payments that come from foreign sources (such as aid funds), official development assistance and private philanthropic contributions.<sup>(29)</sup>

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This document was issued in May 2020.  
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