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# WATER, SANITATION, AND HYGIENE FINANCE (WASH-FIN)

## Accessing Commercial Finance for Water and Sanitation Service Providers in Kenya, Cambodia, and Senegal



**DECEMBER 2022**

This publication was produced for review by the United States Agency for International Development. It was prepared by Tetra Tech.

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Cover Photo: Clockwise from top left, USAID's WASH-FIN activities in Cambodia, Senegal, and Kenya.  
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December 2022

### **DISCLAIMER**

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.



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# ACRONYMS AND ABBREVIATIONS

A2F	Access 2 Finance (Cambodia)
BMGF	Bill and Melinda Gates Foundation
CapEx	Capital Expenditure
CWA	Cambodian Water Supply Association
I&P	Investors and Partners ( <i>Investisseurs &amp; Partenaires</i> )
KWS	Kampong Chamlong Water Supply (Cambodia)
MAWASCO	Mathira Water & Sewerage Company Ltd.
MIH	Ministry of Industry and Handicraft
NRW	Non-Revenue Water
OBA	Output-Based Aid
ONAS	National Office of Sanitation ( <i>Office National de l'Assainissement du Sénégal</i> )
PSMBV	The Program for Structuring the Fecal Sludge Market ( <i>Programme de Structuration du Marché des Boues de Vidange</i> )
PWO	Private Water Operator (Cambodia)
SME	Small- to Medium-sized Enterprises
SSP	Sanitation Service Provider (Senegal)
USAID	United States Agency for International Development
US\$	United States Dollar
WASH	Water, Sanitation, and Hygiene
WASH-FIN	Water, Sanitation, and Hygiene Finance
WASREB	Water Services Regulatory Board (Kenya)
WATIH	USAID West Africa Trade and Investment Hub
WHO	World Health Organization
WSP	Water Service Provider (Kenya)
WSS	Water Supply and Sanitation
WSTF	Water Sector Trust Fund (Kenya)

# 1.0 INTRODUCTION

Policy makers and practitioners have considered accessing commercial finance to be a critical piece of funding water and sanitation service delivery for decades. The barriers and opportunities to leveraging commercial finance are well documented<sup>1</sup> and many countries include raising commercial finance and increasing private sector participation as an objective of policies, guidelines and even laws. Although there are examples of practitioners designing effective interventions to mobilize commercial finance,<sup>2</sup> they remain rare. In order to close the finance gap and meet the sustainable development goals, there will need to be renewed effort to effectively pursue commercial financing opportunities.

This paper presents three case studies from the USAID Water, Sanitation and Hygiene Finance (WASH-FIN) Program, which illustrate different approaches to leveraging commercial finance in the water supply and sanitation (WSS) sector. The Program implemented activities in ten countries in Africa, Asia, and Latin America since 2016 and helped raise over US\$118.8 million from a mix of public and private financing sources. These three examples from Kenya, Cambodia, and Senegal are representative of the Program's efforts to help close financing gaps utilizing both public and commercial funding sources.

Although the amount raised over six years demonstrates progress, it still represents less than one tenth of one percent of an estimated US\$286 billion in annual expenditures<sup>3</sup> required to meet universal access to safely managed water and sanitation services by 2030.<sup>4</sup> Globally, the WHO's Joint Monitoring Program estimated that 2 billion people around the world lack safely managed drinking water services and 3.6 billion people lack safely managed sanitation services.<sup>5</sup> Achieving universal access to safely managed services by 2030 will require a quadrupling of current rates of progress.<sup>6</sup> In Kenya, Cambodia, and Senegal, reaching universal coverage by 2030 will require an enormous mobilization of funding, especially when considering accelerating factors such as population growth, rapid urbanization, and climate change.

There continue to be demand- and supply-side constraints to broader access to commercial finance. On the demand side, public providers typically operate as government or quasi-government entities heavily reliant on public funds. However, national, and local policies and politics can influence public utility operations in ways that can undermine commercial viability and the creditworthiness required to attract private capital. For example, political influence can exert pressure on tariff setting processes, and finance opportunities may be missed due to political factors or gaps in decision makers' technical knowledge. In Kenya, corporate governance challenges emerge when political appointees are overrepresented on the Boards of Directors of public utilities, reducing confidence in their impartiality and sector expertise.<sup>7</sup>

In contrast, private service providers, for example in Cambodia and Senegal, operate as small- to medium-sized enterprises (SMEs). These providers face access to finance challenges common to their small business peers in other sectors, including a lack of formalization, incomplete or deficient business documentation, and constraints maintaining the positive cashflow necessary for loan repayment.

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<sup>1</sup> World Bank (2017). Introducing Commercial Finance into the Water Sector in Developing Countries.

<sup>2</sup> See: World Bank (2016). Case Studies in Blended Finance for Water and Sanitation; Convergence (2021). Outcome Document on Blended Finance for Water Infrastructure Maintenance and Fecal Sludge Management.

<sup>3</sup> World Resources Institute (2020). Achieving Abundance: Understanding the Cost of a Sustainable Water Future.

<sup>4</sup> Hutton and Varughese (2016). The Costs of Meeting the 2030 Sustainable Development Goal Targets on Drinking Water, Sanitation, and Hygiene.

<sup>5</sup> WHO/UNICEF Joint Monitoring Program (JMP) for Water Supply, Sanitation and Hygiene (2021). Progress on household drinking water, sanitation and hygiene 2000-2020: Five years into the SDGs.

<sup>6</sup> Ibid.

<sup>7</sup> World Bank (2017). Introducing Commercial Finance into the Water Sector in Developing Countries.

Moreover, for public and private service providers, weak or unsettled enabling environments affect not only the ability to mobilize private capital, but also the total amount, availability, and types of all potential sources of finance.

On the supply side, commercial lenders are generally risk averse, a position compounded by lack of familiarity with the WSS sector and a perception that the sector is difficult for them to serve. Consequently, lenders are less likely to lend to WSS providers unless the business case is extremely strong.<sup>8</sup> When they do lend, lenders will impose strict requirements, such as requiring borrowers to have prior credit history and to pledge collateral as a security, which can range from 1.5 to three times the value of a loan. For most WSS investments, the physical assets themselves (e.g., pipes, pumps, water treatment technology) cannot act as collateral as they are not easily resaleable by banks. While owners of private WSS providers have more options to pledge other personal or business assets (property, land, vehicles, etc.), meeting collateral requirements is extremely challenging for public utilities due to the public ownership of assets.

The purpose of this report is to document and reflect on the technical assistance approaches in three countries where providers were able to access commercial financing. The cases describe the context, challenge, and process of how WASH-FIN partnered with service providers to unlock finance.

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<sup>8</sup> As noted in WASH-FIN's Landscape reports from Cambodia and Kenya, and Country Briefs for Senegal, Cambodia, and Kenya.

## 2.0 CASE STUDIES

### 2.1 KENYA: MATHIRA WATER & SEWERAGE COMPANY LTD.

This case study highlights how USAID's WASH-FIN provided technical assistance to Mathira Water and Sanitation Company (MAWASCO) to support its stalled effort to access financing from the World Bank's Output-Based Aid (OBA) program.

#### 2.1.1 CONTEXT

Kenya's 2010 Constitution established a system of decentralized government that devolved WSS service delivery to the local level. This resulted in Kenya's 47 counties being responsible for achieving the government's ambitious national goal of universal access to safe water and safely managed sanitation services by 2030.<sup>9</sup> By 2020, only 62 percent of Kenyans had access to safe water and only 33 percent to safely managed sanitation.<sup>10</sup> To achieve the goal of universal coverage, in 2013 the Government of Kenya estimated a required expenditure of US\$930 million annually.<sup>11</sup> Yet as of 2018, only about US\$370 million annually was available, leaving an annual shortfall of approximately US\$580 million.<sup>12</sup> Since 2007, the Government's water services strategy has included attracting private sector financing to bridge the financing gap.<sup>13</sup>

In Kenya, WSS services are delivered by 88 water service providers (WSPs), which, in line with Kenya's reforms to devolve service provision to the local level, are county-owned corporatized entities regulated by Kenya's Water Services Regulatory Board (WASREB). These WSPs serve over 53 percent of Kenya's population and while WSPs could benefit from private sector financing, recent regulatory reports indicate that only a small number (between 8 and 14) are considered creditworthy.<sup>14</sup> Those that are not deemed creditworthy struggle with a variety of governance and operational issues, such as tariffs that do not cover operational costs, inefficient revenue collection, inadequate information management systems to monitor operational, asset, and financial performance for effective decision making, and high costs and inefficiencies, including non-revenue water (NRW). On top of this, the process of devolution created accounting challenges across institutions as liabilities and assets were transferred from the books of the pre-devolution regional water service boards (currently Water Works Development Agencies) to WSPs. The accounting remains unclear and contested, resulting in an ongoing lack of clarity regarding who is responsible for paying off this transferred debt. This debt is not reflected in the WSPs financial statements.<sup>15</sup> These and other factors add to the perception held by commercial finance institutions that the WSS sector is uncertain and a credit risk.

#### 2.1.2 SERVICE PROVIDER BACKGROUND

MAWASCO is one of five WSPs in Nyeri County providing WSS services to over 340,000<sup>16</sup> people in urban, peri-urban, and rural areas.

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<sup>9</sup> Government of the Republic of Kenya (2007). Kenya Vision 2030.

<sup>10</sup> Progress on household drinking water, sanitation and hygiene 2000-2020: five years into the sustainable development goals. WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene.

<sup>11</sup> Ministry of Environment Water and Natural Resources, Republic of Kenya (2013). National Water Master Plan 2030, Final Report.

<sup>12</sup> Kenya Water Services Regulatory Board (2019). Impact: a performance report of Kenya's water services sector – 2017/18.

<sup>13</sup> Republic of Kenya, Ministry of Water & Sanitation and Irrigation (2007). The National Water Services Strategy (NWSS) (2007 – 2015).

<sup>14</sup> WASREB Impact Reports; available at <https://wasreb.go.ke/impact-reports/>.

<sup>15</sup> In an effort to help the government address this issue, the World Bank in 2019 supported a study to assess the debt and identify measures to deal with it. The study has not been shared publicly and the issue remains unresolved.

<sup>16</sup> WASREB's Impact Report 14 <https://wasreb.go.ke/impact-report-issue-no-14/>.



The WSP was incorporated in 2005, but by 2018, the company was still serving only 38 percent of residents in its coverage area.<sup>17</sup> To expand coverage, improve service delivery, and grow its revenue base, MAWASCO developed an ambitious capital investment plan to improve and expand its water supply system. However, like many WSPs in Kenya, MAWASCO was not creditworthy; it was operationally inefficient with high NRW, had insufficient cash flow to adequately service new debt obligations, and lacked a credit history. The utility required support from commercial finance institutions to achieve its goals, and in late 2017, MAWASCO successfully enrolled in the World Bank's Results-Based Finance<sup>18</sup> program. This Kenya program was designed using an OBA approach to provide a capital expenditure (CapEx) subsidy to WSPs in smaller cities to expand and improve services to low-income areas and close the gap in access with larger metropolitan areas (e.g., Nairobi and Mombasa).<sup>19</sup>



*Laying of new pipe for service expansion in Mathira, Kenya.*

The OBA program provides a CapEx subsidy as a payment of 40 to 60 percent to pay down the principal on commercial bank loans of participating WSPs, provided that the loans were made on market terms, thereby incentivizing practices to improve creditworthiness.<sup>20</sup> While only marginally creditworthy on its own, MAWASCO met the OBA program requirements and successfully applied for a commercial loan from Family Bank, a local Kenyan bank. However, by the time Family Bank approved the loan application, a new government was in place which was unfamiliar with the program and raised concerns. As county government owns the WSPs, a “Letter of No Objection” is required from the county when one of the WSPs it owns seeks to raise commercial debt. The county’s main concerns were unfamiliarity and lack of information about the OBA program, changes in WSP management since it first engaged in the program, and uncertainty about the WSP’s ability to repay the loan. As a new government - and owner of MAWASCO - these concerns were wholly valid and prudent. However, because of the delays caused by this situation, the challenge for MAWASCO was how to remain in good standing with the World Bank and OBA program implementer Kenya Water Sector Trust Fund (WSTF) and not put the loan - and investments it would finance - at risk.

### 2.1.3 KEY TECHNICAL ASSISTANCE ACTIVITIES

**Financial and creditworthiness analysis and the OBA component.** The USAID WASH-FIN team began working with MAWASCO in 2018 to prepare an initial creditworthiness assessment. This assessment showed that the WSP was not ready to access commercial financing directly but could be supported to access other forms of financing available in the market, such as OBA. MAWASCO reported many projects in its pipeline, including the Karatina Urban Water Supply Rehabilitation Project,<sup>21</sup> with an

<sup>17</sup> WASREB's Impact Report II [https://wasreb.go.ke/downloads/WASREB\\_Impact\\_ReportII.pdf](https://wasreb.go.ke/downloads/WASREB_Impact_ReportII.pdf).

<sup>18</sup> World Bank, Global Partnerships for Output-Based Aid (2018). A Guide for Effective Results-Based Financing Strategies.

<sup>19</sup> The World Bank Kenya Urban Water and Sanitation OBA Fund for Low Income Areas (PI32979).

<sup>20</sup> World Bank (2016). Knowledge Note Kenya: Scaling Up Blended Financing of Water and Sanitation Investments in Kenya.

<sup>21</sup> The Karatina Project was part of a longer-term investment program totaling US\$24.6 million designed to lower NRW from 62 percent to 35 percent by rehabilitating pipeline, increasing water supply, and improving treatment capacity.

estimated cost of US\$870,000. The scope of the project included rehabilitation of treatment works, distribution mains, and increased storage capacity to provide at least 7,000 people from low-income households with access to safe drinking water—many of whom had never enjoyed piped water supply. The project met the requirements of the OBA program and a commercial bank approved MAWASCO for a loan to fund the investment, with projections indicating increased revenue and improved efficiencies due to reduction of NRW thereby benefitting all customers. The team revised its assessment of MAWASCO's audited financial statements and cash flows in terms of this loan. This was critical in overcoming the county government's concerns regarding debt service capacity. Although the assessment found that MAWASCO was outside of acceptable levels for most performance and financial indicators, and therefore unlikely to be creditworthy, it did provide evidence of the potential for improvement over time—including through the projected increase in connections and revenues from the investments.

**Supporting the county approval process during political transition.** The comprehensive financial assessment provided the county government with an objective view of MAWASCO's financial status. It was also important for the county to understand the structuring and value of the OBA subsidy in reducing MAWASCO's financing costs, enhancing repayment, and overall stronger business case for MAWASCO to take on the loan.<sup>22</sup> Based on this information and technical support in communicating it to the County, the required "Letter of No Objection" was received in July 2018. This allowed MAWASCO to proceed with the commercial loan application and re-engage with the World Bank to maintain the utility's good standing within the OBA program. The benefits of using the less costly, subsidized OBA loan to invest in improvements that would enhance revenue collection and other efficiencies helped to reduce risks in terms of loan repayment.



*Teresa Wanjiku enjoys the benefits that water brings to her home and neighborhood in Mathira, Kenya.*

**Support to meet the conditions of the OBA program.** Once the political challenges were met, the WSP needed to complete several technical, social, and environmental requirements to comply with the OBA program. WASH-FIN support to MAWASCO helped expedite the completion of these requirements, including preparation of a Project Affected Persons summary, and a Resettlement Action Plan for the population in the project areas. The support significantly reduced the total cost of compensation and the WSP covered the expenses from its own sources without further delays to mobilize funds. This refinement had the additional benefit of enhancing MAWASCO's financial position in accessing commercial finance.

**Strategic customer engagement to meet OBA connection targets and improve revenue generation and collection.** The OBA program required that participating WSPs realize a certain number of connections to receive the subsidy. This outcome supports good commercial practices as a critical mass of customers who are willing and able to pay is crucial for cost recovery, including costs of financing. Utilities can enhance willingness to pay for expanded or improved services through customer outreach, but MAWASCO did not have a strategy in place to sensitize stakeholders and customers to

<sup>22</sup> The OBA subsidy helped to reduce lending costs to 4 percent above the interest rate published by the Central Bank of Kenya.

the project. To overcome these gaps, MAWASCO needed to prepare a strategy to meet the targets to qualify for the subsidy and maximize cost recovery. WASH-FIN worked with MAWASCO to develop the strategy and identify the preferred modes of communication and design outreach messages to increase awareness of the project to create demand for the new services. In addition, marketing assistants were recruited to perform door-to-door outreach and customer clinics in the project area.

#### 2.1.4 RESULTS

As a result of USAID's technical support, MAWASCO successfully closed an OBA-subsidized commercial loan with Family Bank in the amount of US\$1,070,000 in August 2018. This loan had a 14 percent interest rate over a five-year repayment period with a 12-month grace period. While the costs were higher than anticipated for the project, the OBA subsidy of US\$642,000 reduced the loan principal amount by 60 percent.

The WSP used loan proceeds to implement the Karatina Urban Water Supply Rehabilitation Project, which involved the rehabilitation of 45.3 kilometers of pipeline and new services to a low-income area. By March 2020, the project connected 1,600 households and over 12,000 people who previously had no, or inadequate access received clean water. Residents reported both time savings and an 87 percent reduction in monthly expenditure on water over their previous source.<sup>23</sup> According to MAWASCO Managing Director David Gathogo, the company met all conditions and received the OBA subsidy on schedule and is making monthly loan repayments comfortably with approximately 70 percent of the loan amount repaid by early 2022. "With additional water connections and improved water supply in the project area, revenues have increased significantly, and our collection efficiency is now at 98 percent," he added.

#### 2.1.5 MORE INFORMATION

- [Kenya Project Brief – Access to Commercial Finance for WASH in Kenya; Looking Back to SUWASA and to the Future with WASH-FIN \(2018\)](#)
- [Kenya Country Brief – Expanding Finance for Water Service Providers in Kenya](#)
- [Discussion Paper on Drivers of Low Creditworthiness in Kenyan WSPs \(2020\)](#)

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<sup>23</sup> USAID's WASH-FIN (2020). Kenya Country Brief – Expanding Finance for Water Service Providers in Kenya.

## 2.2 CAMBODIA: KAMPONG CHAMLONG WATER SUPPLY COMPANY

### 2.2.1 CONTEXT

Cambodia has a history of struggling with access to water services. In 2017, only 26 percent of the total population had access to piped drinking water and only 12 out of 25 provinces counted on functioning municipal water utilities. By 2018, the estimated annual investment gap to expand water services to meet the government's intermediate 2025 sustainable development goal targets was US\$191 million.<sup>24</sup> This presented an opportunity for the private sector to develop alternative water utilities. By July 2020, roughly 50 percent of the population had access to piped water service provided by one of the approximately 500 private water operators (PWOs) in the country.<sup>25</sup> Despite high demand and a growing population, it is difficult for PWOs to obtain required financing to expand their services.<sup>26,27</sup>

The combination of insufficient government spending to provide municipal services and inability of PWOs to obtain commercial bank financing represents an opportunity for government to support leveraging private sector investment to achieve its universal access goals. Indeed, the financing constraints that PWOs experience are in part due to sector governance and regulatory challenges, which the World Bank began to address with technical assistance in 2013.<sup>28</sup> For example, until 2014, PWOs could only obtain official licenses for three-year periods and it could take years to get the initial license.<sup>29</sup> The short license period created a risk to financiers in that if a PWO failed to secure or renew its license it would cease being a formalized service provider putting into question its ability to operate within its coverage area. Overcoming this risk required either very short loan periods to match the license period (rather than asset life, which is more economical), increased collateral and interest rates, or reducing the potential investment size. Although a 2014 decree from the Ministry of Industry and Handicraft (MIH) granted 20-year licensing terms for PWOs and helped to clarify the highly bureaucratic licensing process, PWOs lost opportunities in the interim to build a credit history.

This case study highlights the experience of Kampong Chamlong Water Supply Company, a PWO with nearly two decades in operation that benefited from the licensing reforms and technical assistance to obtain five separate loans totaling US\$2.2 million.

### 2.2.2 SERVICE PROVIDER BACKGROUND

Kampong Chamlong Water Supply Company (KWS) is a PWO located in Kandal Province in the lowland area of the upper Mekong. In operation since 2003, it suffered a setback in 2005 when one half of its 800 connections were damaged during the construction of a nearby road—unfortunately, a common occurrence due to lack of coordination with the Ministry of Public Works and Transport. KWS managed to rebuild and expand its operations from 2005 to 2010, partly through a USAID grant.<sup>30</sup> In 2016, KWS received a 20-year license from the Ministry of Industry, Technology, Science & Innovation (formerly MIH) authorizing it to supply water to 41 villages in its coverage area consisting of approximately 15,300 households. However, financing the infrastructure for these connections was a

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<sup>24</sup> USAID's WASH-FIN (2018). Cambodia Investor Landscape Assessment Report.

<sup>25</sup> World Bank (2020). Results Brief: Partnering for Impact – Strengthening Institutions to Bring Water and Sanitation Services to Cambodia's Rural Areas.

<sup>26</sup> It is estimated that more than 325 PWOs are licensed but there are also numerous unlicensed PWOs operating in Cambodia.

<sup>27</sup> USAID's WASH-FIN (2018). Cambodia Investor Landscape Assessment Report.

<sup>28</sup> The World Bank Group (2016). Kingdom of Cambodia: Strengthening Sustainable Water Supply Services through Domestic Private Sector Providers in Cambodia.

<sup>29</sup> The World Bank Group (2015). Water Supply and Sanitation in Cambodia: Turning Finance into Services for the Future.

<sup>30</sup> Kampong Chamlong Water Supply Company (March 2022). Presentation during WASH-FIN Cambodia Final Learning Workshop.



challenge, and KWS did not have the proper administrative and accounting systems in place to prepare the documentation required to apply for bank loans.

Like many PWOs in Cambodia, KWS is a family-run, SME that lacked formal business and financial training. Banks often view SMEs such as KWS as risky investments, and to offset this risk, require collateral equal to 100-300 percent of the loan value to secure loans with interest rates ranging from 12 to 15 percent.<sup>31</sup> PWOs therefore not only lack the capabilities to access commercial financing but even if they do raise the collateral, the loans are prohibitively expensive to pay off. The challenge for KWS was how to finance the investment necessary to expand the system to customers in its license area to remain compliant with the license terms.

### 2.2.3 KEY TECHNICAL ASSISTANCE ACTIVITIES

USAID's WASH-FIN started working in Cambodia in October 2017 with an overall goal to close the finance gap by expanding the market for commercial lending for PWOs to help achieve universal water supply access. To this end, the Program took a demand driven approach in partnership with the Cambodia Water Supply Association (CWA)<sup>32</sup> to conduct outreach and solicit applications from PWOs interested in receiving technical assistance. The PWO selection process included collecting data from applicants and verifying it through site visits. The criteria were: 1) PWO was a member of CWA with a valid license; 2) PWO management demonstrated willingness and needs that matched the technical assistance available; 3) financial and operational data indicating likelihood of success; and 4) PWO provided WASH-FIN access to financial and accounting data and records.

As a licensed PWO and member of CWA, KWS met the threshold criteria. After site visits and an initial assessment, the team validated management's interest and potential for expanding its service coverage and selected KWS to receive technical assistance.<sup>33</sup> The main technical assistance activities included:

#### **Initial market and capacity assessment**

The team verified the initial demand analyses indicating that up to 11,227 total households wanted connections by 2023. To meet the demand, KWS needed significant infrastructure investments beyond the owner's available capital. The team learned that in the past KWS received commercial finance through the Access 2 Finance (A2F) program funded by the *Agence Française de Développement* (French Development Agency), but the PWO lacked an updated business plan and was only familiar with the specific loan process offered through the A2F program.<sup>34</sup> Moreover, in addition to technical assistance, the A2F program leveraged a concessionary



KWS' piped water system replacements for service expansion.

<sup>31</sup> Heng, D., Chea S., and Heng, B. (2021). Impact on Interest Rate Cap on Financial Inclusion in Cambodia. IMF Working Paper.

<sup>32</sup> Cambodia Water Supply Association. <http://www.cwa.org.kh/>

<sup>33</sup> WASH-FIN Cambodia Private Water Operator Selection Process Report. (November 2018).

<sup>34</sup> A total of 31 PWOs participated in the AFD program implemented by the NGO GRET, and business plans were developed as a result. However, under that program's model, GRET acted as a direct intermediary between the PWOs and the bank, including holding and maintaining business documents in lieu of PWOs themselves, meaning the PWOs did not have the plans available for future use. For more information about the program, see: Broadening Access to Water in Rural Cambodia (2020). Agence Française de Développement. <https://www.afd.fr/en/actualites/broadening-access-water-rural-cambodia> and <https://a2fcambodia>.



loan and a development partner-funded partial credit guarantee to reduce risk. As WASH-FIN provided only technical assistance, any commercial bank loans were at market rates.<sup>35</sup>

### ***Technical engineering and financial assessments***

The Team followed up on its initial assessment with a more detailed technical engineering assessment to fully understand the existing piped system as well as the additional capital expenditure required to expand within KWS's license area. Specifically, KWS needed to invest in a water pumping station equipment and systems, a water treatment plant, expanded water storage facilities, and other related improvements as well as acquiring additional land.

WASH-FIN worked with KWS to draft a business plan and prepare a cashflow forecast to finance the planned investments. The analysis showed that KWS required an investment of at least US\$600,000; after accounting for the owner's ability to contribute US\$90,000, this meant that KWS needed US\$510,000 in external finance.

### ***Outreach to financial institutions***

In parallel to the assistance to KWS, the Program also conducted a series of outreach activities to commercial banks and other financial institutions that had historically viewed the WSS sector as risky. This included holding a Financing Landscape Workshop for 18 banks and microfinance institutions in 2018, and a Lessons Learned Workshop in 2019. At the 2019 event, PWOs that recently received financing presented the context and impact of the loans and answered questions from banks interested in investing in the sector.

### ***Engaging sub-national governments***

Since the national government devolved WSS services to the sub-national administrative levels, it is important for sub-national governments to understand the challenges that PWOs encounter. In the past, most PWOs did not have the opportunity to engage directly with government actors. To complement technical assistance, WASH-FIN organized meetings and events to discuss sector challenges and advocate for support within national and sub-national governments. Participants also discussed the lack of coordination between road and water pipe construction which frequently results in damaged water pipes—as KWS had experienced early on. In tandem with these meetings, the program also arranged “water tours” so that government officials and local citizens could observe the water supply and water delivery process, understand the challenges firsthand, and learn about the benefits of safe and reliable piped water supply.

## **2.2.4 RESULTS**

As a result of these efforts, KWS was able to secure an initial loan of US\$150,000. However, as explained previously, to fully expand its coverage levels and improve service provision in accordance with its license and business plan, KWS had capital investment needs of at least \$600,000. By the conclusion of USAID's support, the PWO had raised US\$2.2 million in commercial financing. These loans, shown in Table I below, were notable as



*New pipe ready for installation as part of KWS' service expansion project.*

<sup>35</sup> World Bank (2016). Strengthening Sustainable Water Supply Services through Domestic Private Sector Providers in Cambodia.

they were not only reasonable and appropriate for the PWO to assume based on objective financial analysis, but also because the interest rate and collateral terms were more favorable than what banks typically offered PWOs in the past. Feedback from banks indicated that KWS' transparent accounting records and clear business plan supporting the individual investments were critical factors in enabling the lower interest rates, longer tenors, and more favorable terms. This shows a progression in the sector in terms of reduced reliance on credit enhancements to access finance as per the A2F program, albeit at a small scale.

Overall, the loans that KWS received since 2018 enabled them to invest in network expansion and improvements to reach over 10,000 household connections by the end of 2021. Mr. Ham Ngoun, the owner of KWS, stated, "...I am delighted to be part of the USAID WASH-FIN project which played an important role in my business; the project helped me to identify technical issues and better manage the business, resulting in lower operational costs and improved water quality production in accordance with ministry requirements."

**TABLE I: KWS SECURED LOAN TRANSACTIONS SUPPORTED BY USAID'S WASH-FIN TECHNICAL ASSISTANCE**

Lender	Use of Funds	Key Loan Terms	Amount (US\$)
Rural Water and Sanitation Team <sup>36</sup>	Construction of water treatment plant, storage tank and pipes purchase and installation	7-years; 13.44% interest rate; no collateral; issued in 2018	150,000
Idemitsu Saison Microfinance Cambodia Plc	Expanding service areas and treatment plants	Ten-years; 10.2% interest rate; 30% collateral; issued in 2019	350,000
Advanced Bank of Asia, Ltd	Construction of water treatment plant, storage tank, expansion of piped network, and US\$500,000 loan refinance	Ten-years; 7.25% interest rate; 170% collateral; issued in 2020	1,000,000
Phillip Bank	Expansion of piped networks	Ten-years; 9.25% interest rate for OD of US\$150K, and 9% interest rate for term loan of US\$ 350K; 66% collateral; issued in 2021	510,000
Phillip Bank	Expansion of piped networks	Fifteen-year loan at 9% interest rate; no collateral; issued in 2021	200,000
<b>TOTAL<sup>37</sup></b>			<b>2,200,000</b>

## 2.2.5 MORE INFORMATION

- [Cambodia Investor Landscape Assessment Report \(2018\)](#)
- [Country Brief: Increasing Financing for Private Water Operators in Cambodia \(2022\)](#)

<sup>36</sup> Rural Water and Sanitation Team is a social enterprise/fund and a leading service provider for WASH-SMEs and WASH Agents.

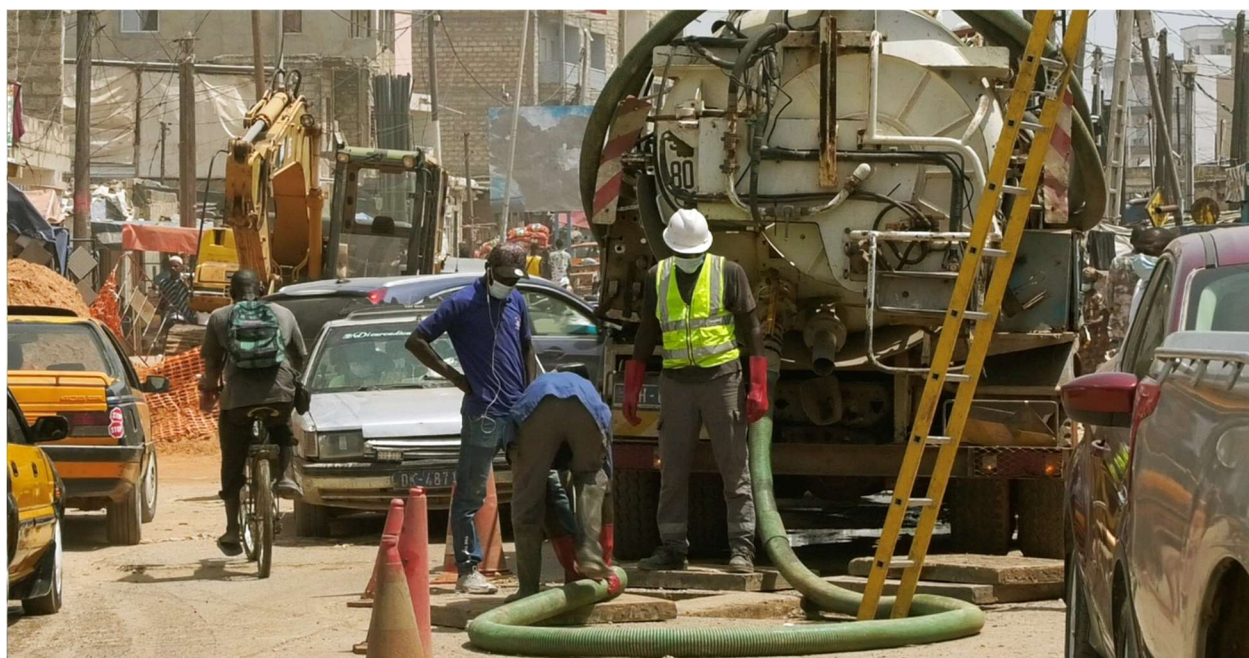
<sup>37</sup> As of October 2021.

## 2.3 SENEGAL: SANITATION SERVICE PROVIDER DELTA SA

### 2.3.1 CONTEXT

Senegal is acknowledged globally for the government's market-based sanitation policy and regulatory framework which, since 1996, has promoted private sector participation across the sanitation service chain. Within this enabling environment, the National Sanitation Agency of Senegal (ONAS, *Office National de l'Assainissement du Sénégal*) has a lead role in issuing and funding contracts for urban fecal sludge management, including treatment plant operation and management of sewerage networks. Development partners have supported the framework, and in 2011, ONAS launched the Fecal Sludge Market Structuring Program (Programme de Structuration du Marché des Boues de Vidange: PSMBV) in partnership with the Bill and Melinda Gates Foundation (BMGF) and the private sector to address challenges of private sector sanitation service providers (SSPs).<sup>38</sup> PSMBV took a multi-pronged approach to enhance market creation and stimulate the growth and development of SSPs. This included technical and financial support, engaging partners to strengthen private sector participation, implementation of a call center model for customers to request SSP services, mobile payments, and a program to strengthen demand.<sup>39</sup> These elements worked in concert with the access to finance component to help SSPs access loans for exhauster trucks essential for their service.<sup>40</sup>

SSPs today engage in a wide range of services including everything from pit emptying to portable toilet rental for events and operation of fecal sludge treatment plants owned by the public sector. PSMBV helped spur competition and expand opportunities for SSPs and by all accounts, the program was a significant success. However, the public sector needed to allocate more funding to close finance gaps, and private finance remained critical within the framework. To illustrate the need, UNICEF estimated that in 2019, 44 percent of the population lacked access to either basic or safely managed sanitation



*Maintenance of sewerage equipment undertaken by staff of Senegalese Sanitation Service Provider DELTA.*

<sup>38</sup> ONAS. Fecal Sludge Management Program. <https://www.onasbv.sn/en/>.

<sup>39</sup> Deutschmann, Joshua et al. (2021). Privatization of Public Goods: Evidence from the Sanitation Sector in Senegal.

<sup>40</sup> World Water Council. (2017) Increasing Financial Flows for Urban Sanitation, Case of Dakar City, Senegal.

services.<sup>41</sup> From a financing perspective, UNICEF estimated an annual budget gap of US\$329 million to achieve universal access to safely managed sanitation.<sup>42</sup>

While the PSMBV improved the situation, institutional challenges remained, as contract oversight of SSPs is complex and requires ONAS to focus on quality while also ensuring that services keep pace with growing demand. Slow government payment is a challenge that complicates SSP cash management and makes it harder for SSPs to access and repay commercial finance—critical in the context of the gap in funding to the sanitation sector highlighted above. Many SSPs also struggle to access finance due to numerous challenges common to small and informal businesses. For example, SSPs typically lack proper financial records required to demonstrate revenue and cost projections for investors. Even SSPs that have the necessary records often require technical assistance to improve the timeliness and accuracy of the financial information and appropriately package it for financiers. These constraints present additional challenges for small—and even larger SSPs—to obtain investment capital from financial institutions.

This case study describes how USAID’s WASH-FIN provided technical assistance to DELTA SA in support of its financing needs and to ultimately mobilize grant and commercial equity investment to expand and diversify to three additional regions.

### 2.3.2 SERVICE PROVIDER BACKGROUND

DELTA SA is a woman-owned SSP founded in 2002 to provide collection and treatment of household fecal sludge, wastewater treatment, and related sanitation and construction services in Senegal. Despite seasonal fluctuations, demand for services grew and the company experienced a 26 percent growth in revenue between 2014 and 2017, reaching US\$5.5 million in 2017.<sup>43</sup> As of 2020, DELTA served an estimated 950,000 people. As one of the larger SSPs in Senegal, DELTA has secure government contracts to undertake sanitation activities within specified coverage areas. Since government contracts account for a significant portion of DELTA’s revenues, payment delays create considerable uncertainty related to the timing of its cashflows, impacting its ability to secure debt. Although DELTA had some prior exposure to lenders and other financial institutions, the company sought assistance with refining its assessment of financing needs and in presenting the opportunities to financiers so that it could further grow its business.

### 2.3.3 KEY TECHNICAL ASSISTANCE ACTIVITIES

WASH-FIN provided technical assistance to 44 other SSPs in addition to supporting DELTA. The team developed a delivery model to tailor support based on the SSP’s level of formality, size of the business, and creditworthiness to access finance. Within this approach, smaller and less formal SSPs received basic training and capacity building to improve accounting and financial records, develop business plans, and build management skills in implementation. DELTA was part of a cohort of larger SSPs that received assistance towards more advanced business goals. The firm had already secured government contracts and had a wider range of services compared to the numerous small SSPs. In order to take advantage of new opportunities in the market, DELTA requested technical assistance to understand how commercial finance could support an expansion of its services. To this end, in 2017 the WASH-FIN team determined that DELTA would benefit from technical assistance in business and financial management, particularly in terms of planning for future investments utilizing commercial finance. In particular, the Team determined that DELTA needed support understanding and improving cash management and working capital practices due to payment delays of its main revenue stream from government contracts.

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<sup>41</sup> WHO/UNICEF Joint Monitoring Programme (2019). [https://washdata.org/?tx\\_displaycontroller%5Btype%5D=country\\_files](https://washdata.org/?tx_displaycontroller%5Btype%5D=country_files).

<sup>42</sup> UNICEF (2019). Financement de l’eau potable et de l’assainissement. Présentation au Ministère de l’eau et de l’assainissement, République du Sénégal.

<sup>43</sup> DELTA Business Plan. (2018).



### **Financial and creditworthiness assessments**

The first step was assessing DELTA's technical and financial health to identify issues that might be limiting the company's growth and areas for improvement. Among other issues, DELTA's costs were increasing faster than revenue.<sup>44</sup> The financial data was also used as an input to a creditworthiness assessment to help DELTA management better understand its financial position and the amount of financing that could be taken on for capital investment through debt or equity.

### **Business plan and financial model**

DELTA also needed a comprehensive business plan to better focus resources and communicate the business case for additional investments. The program helped the company develop a business plan that highlighted its growth opportunities including geographic expansion. The business plan also segmented DELTA's various business activities and presented a roadmap of the capital projects to be undertaken. The team developed a detailed, ten-year financial model which allowed the company to better project revenues, improve liability management, and monitor financial performance over time.

### **Grant application assistance**

In 2020, DELTA became aware of a grant opportunity through the USAID West Africa Trade and Investment Hub (WATIH) which required successful applicants to mobilize equity financing from a private investor. This was an unexpected opportunity that fit well with DELTA's plan to expand safely managed sanitation services to an additional 1,739 households (13,912 individuals), and to improve services overall for more than one million people.<sup>45</sup> WASH-FIN provided support to DELTA on its funding application, helping to articulate its need and to explain the far-reaching impact of a potential grant. The firms' owners were motivated to leverage this grant funding to mobilize private capital in conjunction with it and worked with the team to strengthen internal strategic investment planning processes and articulate its plan in alignment with WATIH requirements.



*Exhauster trucks operated by Senegalese sanitation service provider DELTA.*

<sup>44</sup> WASH-FIN Delta Assessment Memo, December 2017.

<sup>45</sup> Outlined in DELTA's application to the West Africa Trade and Development Hub.



### ***Identification and engagement with private sector financial partner***

To satisfy the WATIH requirements to mobilize private investment, the team worked with DELTA to prepare for and engage with investors. This involved facilitating introductions with potential investors, learning about the requirements for each specific investor, and assisting with using the financial model, business plan, and a ‘teaser’ to prepare the information needed for investor due diligence. The process resulted in an equity financing agreement with impact investor ‘Investors and Partners’ (I&P, *Investisseurs & Partenaires*), representing DELTA’s first outside equity investment.

#### **2.3.4 RESULTS**

In 2021, DELTA became the first WSS services company in sub-Saharan Africa to receive a nearly US\$1 million grant through WATIH. The process resulted in an equity investment of US\$1.9 million in equity financing from I&P. As equity investments involve partial ownership of a company, they typically only occur when an investor has a high degree of confidence in the company’s ability to execute its investment plans and achieve future growth to meet investors’ required rate of return on capital.

I&P made this investment based on the strength of DELTA’s current operations and projected future revenue growth. The models and documents developed with WASH-FIN support helped demonstrate investor readiness and improved DELTA’s creditworthiness by providing investors with clear and concise documentation of the business and the investment opportunity. While an equity investment dilutes ownership, it does not require regular payments as debt financing would, and therefore allows businesses to make strategic investments that may not have immediate returns. The catalytic grant funding from WATIH combined with the equity investment will enable DELTA to extend services under an anticipated contract with revenue generation projected at US\$3.4 million, which will also support several hundred new jobs at DELTA.

#### **2.3.5 MORE INFORMATION**

- [Blog – Facilitating Relationships Between Private Sanitation Service Providers and Commercial Banks in Senegal \(2019\)](#)
- [Senegal Country Brief – Scaling Up Finance to Expand Urban Sanitation Access in Senegal \(2020\)](#)
- [Article – Scaling Up Financing for Urban Sanitation in Senegal \(2020\)](#)

## 3.0 LESSONS LEARNED

These case studies reinforce the potential of targeted technical assistance to improve service provider access to commercial finance and create better matches for the types of financing obtained. While these examples are relatively small, they are representative of the broader USAID WASH-FIN Project approach which to date has mobilized US\$118 million in total funds, of which US\$54 million was commercial capital. They are also representative of the generally smaller amounts of finance that most service providers require and can manage in terms of debt service capacity. The cases also demonstrate the importance of partnerships, collaboration and credit enhancements to build upon previous finance efforts or leverage new catalytic initiatives.

In each case, it was critical to provide support on both the demand and supply sides of the potential financial transactions. On the demand side, the process started with an objective assessment of the service providers' internal financial and operating situation, and external market and finance opportunities. From there, even if the assessments showed marginal creditworthiness, such as with MAWASCO in Kenya, the team sought to align efficiency improvements, careful project selection, and proper business planning with blended finance opportunities such as OBA to leverage commercial finance. MAWASCO's performance shows that utilities can improve and maintain a high level of operational and fiscal discipline with increased revenues and on-time debt service.

On the supply side, outreach to financial institutions was critical to build their familiarity and comfort with the WSS sector and highlight the investment and lending opportunities within it. The story in Cambodia was similar in that a baseline of financial and operating analysis and support for business and technical planning resulted in KWS having the level of business documentation required for Cambodian commercial banks. Parallel efforts to familiarize banks with WASH investment opportunities better prepared the banks for serving this sector, and KWS secured five loans from a range of different financial institutions with whom WASH-FIN supported building relationships. In Senegal, the effort to support DELTA to refine the company's goals and business case resulted in the firm presenting a clear and compelling opportunity to meet the USAID grant program's objectives including leveraging the required private equity investment. This demonstrates the need for alignment across development partners and in this case within, as there are often private sector or other development finance initiatives that can be opportunities for the WASH sector.

Across these examples, there were additional cross-cutting implications for government decision makers and practitioners working to strengthen service provider financial performance and readiness for commercial finance:

- Although government plans and policies typically include mobilizing commercial capital to deliver WSS services as a public service, they are often conceptual and lack detail and specifics in terms of roles and actions. While service providers can access commercial finance, doing so requires sufficient public funding as a catalyst irrespective of institutional set-up, service delivery provider, or technical assistance. To date, weak sector governance and inadequate or misaligned public funding processes are impeding rather than enabling mobilizing commercial capital.
- The public sector must provide the requisite support for providers delivering a public service; this includes financial support for provision of services to areas which are not commercially viable and ensuring prompt payments to providers under contract. Government agencies, service providers and partners must balance the need for government oversight with the faster pace of commercial finance opportunities.

- When developing technical assistance programs for leveraging commercial finance, practitioners should establish a selection process based on a set of objective criteria that emphasize providers' potential creditworthiness and willingness to engage in a transparent financing process. This will demonstrate not only that it is possible, but also model the behaviors and actions that service providers will need to follow to achieve this.
- Each of these cases built upon previous efforts to mobilize private capital, including those paired with credit enhancements such as partial credit guarantees. These development partner-driven guarantees were temporary, and while WASH-FIN mobilized commercial finance without them (although in Kenya the explicit OBA CapEx subsidy was a significant sweetener for the commercial banks), there are many service providers that have yet to access commercial finance. This is an indication that the sector requires more sustained credit enhancement programs paired with technical assistance and explicit consideration of how to graduate providers as they develop a credit history and capabilities to access commercial finance.
- Development partner support is not sustainable over the long term; project cycles may be out of sync with political cycles and evolving government priorities or overlook subtle but important governance challenges that require changes to financial plans, and opportunities for leverage. Partners should encourage and support governments to not only sufficiently fund the sector in a way that leverages other sources, but also take ownership of required actions to mobilize additional finance including technical assistance, credit enhancements, and CapEx and OpEx subsidy programs.

The accomplishments of the USAID-supported service providers to access commercial finance took years to achieve and built upon previous efforts of governments and their development partners. While efforts such as this can 'prime the pump' and demonstrate the potential for WSS service providers to access commercial finance, replication at scale is not a given; it will require a concerted effort led by government and supported by development partners and sector stakeholders. WSS service providers will continue to require technical assistance, coupled with a range of funding support, including increased government budgets to align with sector coverage goals. It is also critical for government, WSS service providers, development partners, and financial institutions to continue strengthening the sector, reducing the financing gap, and coordinating closely to align incentives for achieving universal access to safely managed WASH services.

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