INTRODUCTION

South Africa faces a capital investment funding gap of approximately US$ 20 billion to meet the country’s national objective of universal access to water and sanitation by 2030.¹ Private sector participation in service delivery could contribute to closing the funding gap and meeting sector needs. Public-private partnerships (PPPs) are often viewed as avenues to contribute to more efficient delivery of infrastructure and improved services. However, in South Africa, only two long-term water concessions have been implemented that combine major capital investment with operations and maintenance and retail water service management.² One of these, the Mbombela Water Services Concession, has been in operation since 1999 and is one of the longest serving water concessions in the global south. The United States Agency for International Development (USAID) supported the original structuring of the concession and, 20 years later,

² A “concession” is a particular type of PPP wherein the private party charges users for the service provided, usually through user fees tariffs, rather than receiving payment (fees) from the public partner.
provided technical assistance to improve its performance.

This brief examines the history of the Mbombela Concession, including why the PPP model was adopted, how it was implemented, challenges encountered, how it evolved over time, and how USAID assistance helped improve water and sanitation services in Mbombela.

USAID SUPPORT TO MBOMBELA MUNICIPALITY

USAID, through an earlier initiative in 1999, provided technical assistance and project preparatory support to the City of Mbombela during the original concession preparation process. In 2019, the City requested assistance from USAID to help negotiate an amendment to the original Concession Agreement. In response, USAID provided technical support to the City over the two-year renegotiation process through the Water, Sanitation, and Hygiene Finance (WASH-FIN) project. In South Africa, the WASH-FIN activity objectives focused on reducing financing gaps to support universal access to water and sanitation services by promoting sustainable and creditworthy business models, increased public funding, and expanded market finance for infrastructure investment.

OVERVIEW OF THE MBOMBELA WATER CONCESSION

ORIGINS OF THE PROJECT

At the end of the apartheid era in 1994, Nelspruit was a small town located in the northeastern part of South Africa. The town was later incorporated into a larger municipal jurisdiction, known as the City of Mbombela Municipality, which is now the capital of Mpumalanga Province.

The fall of the apartheid regime was the catalyst for the interest in a PPP model for water services, when the municipal boundaries of the predominantly white City center were expanded to include previously underserved areas in outlying areas with mostly black populations. The town’s official population increased from 24,000 to 240,000, and there was an immediate need to provide essential services to the new, mostly poor City residents. The City Council passed a resolution in 1996 to explore the possibility of a PPP for the City’s water operations and appointed the national government’s parastatal development finance institution, the Development Bank of Southern Africa (DBSA), to lead their investigation of PPP feasibility.

The DBSA analysis confirmed the capital investment needed by the City to expand water and sanitation services was significant, and private service provision seemed to be the only option to raise the needed capital for investment. According to the analysis, the total water and sanitation investment required to provide water services was estimated at ZAR250 million, which the City budget was unable to accommodate.

In the late 1990s, the national government was supportive of PPPs but lacked a legal-regulatory framework for private participation. Instead, USAID provided project preparation funding, channeled through the national government via a recently established municipal infrastructure advisory facility known as the Municipal Infrastructure Investment Unit (MIIU).

After a long project preparation and procurement process, including lengthy negotiations with labor union leaders who

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strongly opposed the project, the City and the Concessionaire signed the contract in 1999.4

**ORIGINAL CONCESSION AGREEMENT OVERVIEW**

The PPP implemented in Mbombela is a “brownfield” concession, an example of a PPP intended to rehabilitate, extend, maintain, and operate an existing infrastructure service system, in contrast to a “greenfield” solution involving the construction and operation of new assets. Compensation received by the private entity for this involvement usually comes from user fees paid by residents and businesses for the supply of water and sanitation services, rather than payment directly from the public partner.5

The Concession Agreement gave the Concessionaire responsibility for rehabilitation, operation, maintenance, and management of the existing municipal water system assets, as well as financing and constructing assets needed for the expansion of services.6 All fixed assets remained the property of the municipality.

The Concessionaire was also given responsibility for billing and collecting customer user fees. The Concessionaire retained these user fees to pay for the costs of providing the water services, including servicing debts incurred to finance construction of the new assets. Any revenue above these costs became profit used to repay the Concessionaire’s shareholders.

During contract negotiations, it was recognized by the parties that the user fees would not be sufficient to cover all costs of expansion and service provision, especially in the poorer peri-urban areas. Thus, the contract mandated the City provide a share of any available grant funds it received from the national government to the Concessionaire to offset costs associated with service provision to the poor.

In general, there are only three sources of funds available to a public sector actor to fund its activities, commonly referred to as the “three Ts,” including tariffs (or user fees), taxes, and transfers (or grants). In the case of South Africa, municipalities do not have the authority to levy taxes and are reliant on user fees collected for services provided and grants from the national treasury. For the Mbombela Concession, the relevant grants available to the City include the Municipal Infrastructure Grant (MIG) and the Equitable Share Grant (ESG). The MIG is distributed to finance capital investments and is apportioned based on applications prepared by the municipalities. The ESG is a constitutionally mandated grant provided annually to all municipalities based on various demographic indicators. The ESG is ostensibly supposed to provide financing to support the provision of basic services to the poor; however, it is an unconditional grant that the municipalities can apply as they see fit. The contract did not provide specific levels of grant funding to be contributed by the municipality and this has remained an area of contention throughout the concession period.

The contract also required several kinds of financial commitments by the Concessionaire, in addition to an initial capital investment. The Concessionaire was required to establish a financial guarantee with a local bank, to protect the City against the Concessionaire defaulting or breaching the contract. The Concessionaire was

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4 The Concessionaire was originally known as the “Greater Nelspruit Utility Company.” The name was later changed to “Silulumanzi” after ownership of the company changed, and that name continues to be used despite several more ownership changes. To avoid confusion, this brief only refers to “the Concessionaire.”

5 Although popular in the 1990s, brownfield user-pays PPPs have largely underperformed and as a result fallen out of favor in the global south.

also required to pay a contract implementation fee and an annual concession fee to compensate the City for costs of managing the Concession. In addition, the Concessionaire was required to make annual lease payments for the use of the City’s existing water and sanitation assets in order to pay off the debts incurred by the City prior to the Concession.

While the Concessionaire was responsible for managing the collection of user fees from end-users, the City was legally prohibited from delegating tariff setting to the Concessionaire. The City was responsible for ensuring that the water operator’s tariffs were high enough to cover costs, as they were contractually required to cover any losses by the service provider (and pay a pre-agreed profit margin). Provider performance and tariffs were reassessed by the City every five years.

**ASSESSMENT OF THE MBOMBELA CONCESSION**

Two project performance reviews were completed over the first 20 years of the contract. The first was an independent, 10-year review commissioned by the World Bank. A local consulting firm contracted by the municipality undertook the second review. This section draws from and expands upon these reviews to assess how the Mbombela Concession fared over time.

The Mbombela Water Services Concession has had a mixed record of performance over the past 20 years. By many official measures, water and sanitation services in the urban areas managed by the Concessionaire are among the best in South Africa, including the quality of water and treated wastewater. They have also significantly expanded the water supply system over the past 20 years to accommodate the rapidly growing urban area. However, the Concession has not been as successful in providing reliable water and sanitation services to the poor in peri-urban and rural areas.

This is in large part due to inadequate project preparation (i.e., the initial work done to develop a project and ensure it is viable), unfavorable terms provided in the original contract, and popular resistance to the PPP approach to water service provision. Further, both the City and national government provided inadequate contract compliance oversight, which allowed the Concessionaire to not fulfill all responsibilities while continuing to benefit financially over the life of the contract. These challenges are discussed in greater detail below.

**PROJECT PREPARATION AND TENDERING**

In the 1990s, the approach commonly recommended globally for the preparation of PPPs like the Mbombela Concession was to transfer much of this work to the private sector as part of the tender process so that it could be implemented quickly and at low cost to governments. The shortcomings of this approach were evident in Mbombela’s case. Bidders were cautioned in the request for proposals to base their bids exclusively on their own due diligence and to not assume that the municipality’s information was necessarily thorough or correct. This approach resulted in a lack of understanding of the condition of the assets and an inaccurate estimate of consumers’ willingness and ability to pay.

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9 The PPP approach was characterized by the unions and other opponents as “privatization” even though this project did not result in ownership changes.
pay. It also resulted in delays to contracting as bidders were given extensive time to complete due diligence and then negotiations were lengthy due to the lack of baseline information. In the end, the additional costs of the advisory work due to the delays exceeded any savings achieved by the City through this approach.

**CONCESSION FINANCING**

Access to private finance is often cited as a key benefit of PPPs; however, in the case of the Mbombela Concession, legislative risks discouraged the participation of commercial lenders. During contract negotiation, the Concessionaire’s lawyers identified a problem with the Water Services Act of 1997 (WSA). The act empowered the Minister of Water Affairs to set technical standards and tariffs, intervene in any contract that he/she felt warranted adjustment, and even seize private infrastructure assets, without compensation or due process. It was expected at that time that a new law, the Municipal Systems Act (MSA), scheduled for passage in late 1999 or early 2000, would resolve this risk, and the Concession contract could then be restructured. However, commercial lenders remained concerned about the risk of such action and decided not to participate in project financing until the new act was passed.

In response, DBSA stepped in to provide initial funding assuming the commercial lenders would refinance most of it once the new bill was passed. However, when the MSA was passed in 2000, it did not include the expected changes to the legal framework. Among other things, the new act authorized the Minister of Provincial and Local Government to issue regulations regarding “limits on tariff increases” for all municipal services. This section of the act raised the possibility that the government might take action that would fatally damage the contract. The legislative problem was never resolved despite lobbying by the Chief Executive Officer of DBSA. As a result, the amount originally provided by DBSA was never complemented by commercial banks to allow the Concessionaire to fully meet its investment commitments.

**CASH FLOWS AND PROFITABILITY**

The Concessionaire experienced higher-than-expected costs and lower profits almost immediately as the company took control of the municipal water system.

**Non-payment by Users.** A willingness-to-pay survey completed by the City during project preparation had indicated that people wanted household connections and were willing to pay for them. However, when operations began, payment levels from end-users were lower than expected. The reasons for non-payment were attributed to socio-economic, political, and ideological factors; grievances about the quality of service; and confusion over water meters and billing. Labor unions, civil society groups, and even an opposition political party encouraged non-payment. In some cases, end-users in poorer areas were not able to afford to pay their water bills.

As a result of non-payment, the Concessionaire enacted service cut-offs and other control measures permitted in the contract. This resulted in additional public resistance to the Concession, an increase in illegal connections, even lower payment levels, and threats of violence directed at the Concessionaire’s workers, City managers, and councilors. The implementation of a national policy known as “Free Basic Water” in 2002 also

contributed to non-payment issues. The policy required that all water service providers in South Africa provide a minimum of 6,000 liters of water per month to low-income households, free of charge, but in Mbombela, the policy was interpreted in poor communities as proof that all water should be free for poor households. Because of non-payment, the Concessionaire’s rate of return continued to drop.

**Early Contract Renegotiations.** The first contract renegotiation was an informal one that took place after the free water policy was implemented. The Council agreed to grant the Concessionaire’s request for tariff increases in two stages. The Council also agreed to help the Concessionaire with enforcing consumer payment and to contribute a greater portion of the City’s Equitable Share Grant to help finance the free water policy subsidy. These changes did not result in significant revenue improvements, and in 2003, the Concessionaire threatened to default on its contract commitments and effectively terminate the contract. This led to a more formal contract renegotiation. Contract amendments included reductions in the Concessionaire’s electricity bill, monitoring fee, and the fee for utility asset rental, and an increase in the Concessionaire’s share of the grants received by the municipality from the National Treasury. These capital grants were supposed to supplement financing provided by the Concessionaire; however, following the renegotiation, the Concessionaire significantly reduced its investment in the project, and these national government grants became the only outside source of funding.

**Capital Investment.** The Concessionaire began project-related investments at the outset of the contract. DBSA funded a large portion of this with the assumption that some of what they provided would be refinanced later by commercial banks, but in 2003, due to non-payment and opposition to the contract, the Concessionaire argued that additional capital investment did not make financial sense. In the 2003 renegotiation, the original five-year capital investment target was extended over a 10-year period. The World Bank-funded review of the contract in 2010 found that even the reduced capital investment was not reached. The review found that the Concessionaire only invested about 50% of the expected capital over the first five years and 72% over the 10-year period. The Concessionaire only used about 43% (R54 million) of the DBSA funding (R125 million) for capital investment and no additional financing was ever provided by commercial lenders. At that time, the Concessionaire made clear its intention to continue extending water services using government grants and retained earnings (net income retained for operations after dividends were paid to shareholders) but indicated that it had no intention of using additional debt or shareholder equity for such investment.

The 2020 review of the Concession estimated that, up to that time, the Concessionaire had only invested 24% of the total capital investment necessary to expand services and that investment levels were declining. By 2020, the Concessionaire’s cash flow recovered, and the project became profitable, but the Concessionaire continued to limit its sources for capital investments to retained earnings and

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13. Over the previous 10 years, the project had paid out R238 million in dividends to shareholders.
government grants passed on by the City instead of seeking new debt financing. This meant that investment levels for the 20-year period were low relative to comparable South African cities, and even relative to Mbombela’s own investments in water infrastructure not under the Concessionaire’s control. By 2019, non-revenue water (NRW) in the service area had reached 42.4%, with a high proportion of technical losses suggesting deferred maintenance and under-investment in the distribution infrastructure.\(^{14}\)

**SERVICE PROVISION**

The 2010 review found that most households had access to water of acceptable quality, but 68% (50,000 households) did not have access to 24-hour supply with the chances of reaching full continuity of supply increasingly remote. Furthermore, the review found that only 2% of 46,634 households in informal areas had access to 24-hour water supply. Very little progress was made in reducing the number of illegal connections in these areas or controlling water usage.\(^{15}\)

The 2020 review also found that basic access to water continued to improve, but continuity of supply declined since 2010, with only 26% of customers receiving 24-hour service. The Concession maintained high levels of service in an area corresponding to the original Nelspruit urban area, but this area already had full 24-hour service and 100% payment levels when the contract began.\(^{16}\)

Regarding sanitation, increases in household access to sewered sanitation primarily occurred only in Nelspruit. The remaining households in the service area, mostly relying on on-site sanitation, saw very little improvement as a 2014 amendment effectively removed sanitation obligations from the contract.\(^{17}\)

**PRO-POOR PROJECT IMPACTS**

The achievement of pro-poor benefits was the original objective of the Concession contract given the expanded municipal population and national government’s development plans for the country after the end of apartheid.

The contract included requirements for worker and community benefits, such as: 1) requirements for staff training and liberal remuneration policies; 2) funding for community development programs, youth and female development programs, etc.; 3) annual contributions by the project company to a community development fund; and 4) measures for the use and development of small contractors, the enhancement of local businesses and professionals, and the development of and support for small enterprises. Most of these measures were implemented as planned.

The original contract also had several pro-poor water service performance targets and specified a variety of different service levels applying to different areas. In general, the contract required metered or restricted house or yard connections, with 24-hour supply, for all formal\(^ {18}\) households within the first five years (in 2004, this target date was extended to 2009). The contract required a “basic” level of supply in informal areas by 2009\(^ {19}\) and for the Concessionaire to use its “best efforts” to achieve 24-hour supply in informal

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17 Ibid.

18 “Formal” households referred to houses on land formally registered to an owner.

19 Originally, “basic” was defined as “communal standpipes delivering 25 liters per capita, per day, to within 200 meters
areas by 2009. Regarding sanitation, the contract required one of three alternatives: a VIP toilet, a septic tank system, or full waterborne service connected to a treatment works.

After the introduction of free water policy in 2002 and the subsequent restructuring of the contract, progress in several pro-poor contract areas stopped or reversed, including the extension of uninterrupted water service to informal areas. The failure of efforts to generate expected pro-poor benefits in poorer areas, especially the lack of 24-hour access, was a significant shortcoming of the Concession in the view of customers and councilors and contributed to low levels of payment, particularly in underserved areas.

CONTRACT MONITORING AND REGULATION

In Mbombela, City officials created a contracts compliance office known as the Concession Monitoring Unit (CMU) to monitor the performance of the private partner, funded by fees paid by the Concessionaire. The Council was required to approve the tariffs levied for water and sanitation services, the quality and level of service provided, and the levels of capital investment proposed by the Concessionaire to meet its performance requirements. A key annex to the Concession contract was a consumers’ bill of rights that regulated how service was to be provided, how complaints were to be responded to, and how service interruptions were to be resolved. A variety of penalties could be applied by the City if the Concessionaire failed to meet any of a long list of performance targets.

The municipality’s contract management function started strongly in the early years of the contract. Several employees were assigned to the CMU, an external auditing firm was engaged, and monthly reports were submitted to a Council sub-committee. However, following the contract renegotiations in 2002 and 2003, key CMU staff left the unit. From that time on, little monitoring took place, and few reports were sent to the Council. The absence of a monitoring function meant that the municipality had no way to know whether the Concessionaire’s performance was acceptable in areas such as 24-hour service access, water demand management, water loss prevention, customer care, customer non-payment, and other indicators. Notably, the CMU failed to assess a single penalty on the Concessionaire during the past two decades of implementation.

ASSESSMENT CONCLUSIONS

Over the past 20 years, the Mbombela Concession significantly increased the number of households with at least some daily water access, improved water quality, carried out staff capacity building, and improved regular maintenance.

However, the Concession largely failed in its objectives of delivering reliable water supply and improved sanitation for mostly poor residents outside of the urban core. Furthermore, the performance of the Concession declined over time in important areas including increasing NRW ratios and decreasing revenue collection.

Some of the responsibility for these shortcomings resulted from the municipality’s failings to adequately support the Concession, including failure to provide sufficient grant funds, failure to

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20 The VIP requirements called for the concessionaire to supply the components for construction of a ventilated, improved, pit latrine toilet, with the actual construction done by homeowners.
enforce bylaws related to revenue collection, and failure to adequately monitor and manage the Concession performance.

2019-2021 USAID SUPPORT: RENEGOTIATION AND CONCESSION MANAGEMENT

Mbombela’s original contract provided for periodic reviews and contract amendments, which are common features in such concessions given the long tenor. These amendments, or “supplementary agreements,” are required every five years, with the fifth supplementary agreement (SA5) originally scheduled to take effect on the Concession’s 20th anniversary in November 2019.

In November 2018, USAID’s WASH-FIN, in cooperation with the Stockholm International Water Institute (SIWI) and the Danish Embassy offered the City assistance in negotiating SA5 to address at least some of the challenges highlighted above. It was agreed that this assistance would include technical support to the negotiations and capacity building for City staff to better monitor and manage the Concession. The Municipal Manager committed to prioritize the SA5 negotiations with the objective of improving service levels in the Concession area while the Deputy Municipal Manager, who was the nominal head of the CMU, committed to supporting the capacity building efforts.

RENegotiated Concession Contract

As an initial step, WASH-FIN drafted terms of reference for transaction advisors who were contracted by the City to support the negotiations. In March 2019, SIWI and the Danish Embassy sponsored a week-long training session on PPPs for key staff from both the City and the Concessionaire using the accredited APGM PPP Certification Program (CP3P). The objective of the training was to provide the City and Concessionaire a common understanding of the original purpose of the Mbombela Concession and a better understanding of their respective roles. At the conclusion of the training, WASH-FIN organized a one-day workshop with key stakeholders to kick off the SA5 negotiation process and frame the City’s negotiating position. Specifically, the City defined their key priorities for the negotiations as including: 1) increasing capital investment; 2) implementing water conservation/water demand management; and 3) improving revenue collection and customer relations.

WASH-FIN facilitated three multi-day negotiation workshops between the City and the Concessionaire, resulting in an agreement-in-principle on the terms of SA5. The negotiated agreement would increase capital investment in the Concession area five-fold compared to the previous five-year period, from approximately US$ 6.5 million to US$ 32.7 million over five years. It also set enforceable performance indicators for expanding uninterrupted water supply to approximately 50,000 people, reducing NRW losses by 10 percentage points, addressing on-site sanitation, and improving collection efficiency.

Unforeseen delays in the City’s internal approval processes, changes in leadership at the City of Mbombela, the untimely death of the Concessionaire’s general manager in late May 2019, a leadership change at the City, and COVID-19 contributed to significant delays in the SA5 negotiation process. The pandemic also brought to light concerns about the affordability of the City’s commitment to contribute additional ESG grant funding to the Concession.

Despite these challenges, WASH-FIN continued to provide technical assistance to facilitate the negotiation process and contracted a legal transaction advisor to help finalize the negotiations. WASH-FIN also engaged with the National Treasury’s PPP Unit to ensure sustainable long-term support to the City during
the negotiation process. The Council approved SA5 in June 2021 with an effective date of July 1, 2021. The new supplementary agreement governs implementation of the Concession through 2026, following which a final supplementary agreement will cover the remaining four-year period until closeout of the 30-year Concession in late 2029.

CAPACITY BUILDING ACTIVITY

Given the earlier identified weak monitoring system, WASH-FIN contracted a local consulting firm, the Palmer Development Group (PDG), to build the capacity of the Mbombela CMU. As part of this work, PDG undertook a diagnostic report that determined that the unit was significantly understaffed with only one professional currently employed despite an organization chart showing eight positions. The diagnostic also determined that the CMU lacked a clear mandate, as its mission had evolved over time to include a monitoring function for all the City’s water services rather than focusing on the Concession. Finally, the diagnostic determined that the CMU was operating on an ad hoc basis due to a lack of an adopted concession management plan or any operating procedures. Considering these shortcomings, WASH-FIN sought to help the City with drafting a revised concession management plan and standard operating procedures, training CMU staff and other key City stakeholders on roles and responsibilities for concession monitoring, and improving performance management and monitoring of the Concession contract.

Following completion of the capacity building engagement, an assessment of the success of these efforts determined that there was improved momentum towards ensuring that the contract is managed more efficiently. There was also an appreciation of the need of municipal role-players to take on greater responsibility in overseeing the Concessionaire’s performance and maintaining the City’s contractual obligations. However, the municipality’s poor performance on its contractual obligations remains a serious problem, including making payments to the Concessionaire, enforcing bylaws in the community, and ensuring that the bulk projects in the area are completed on time and to specification.

In addition, the assessment found that the CMU was not adequately empowered to undertake its mandate. The CMU should be the entity within the municipality that coordinates the municipality’s actions with respect to the Concession contract. Currently, too many of the municipality’s actions are taking place in isolation, and without the CMU being aware of all the decisions that are being made. A significant reason for this lack of empowerment is the confusion over the mandate of the CMU, specifically whether it should be focused only on the performance of the Concession or play a broader role in monitoring water and sanitation services in the City. Finally, the CMU remains substantially understaffed with only one current employee.

In response to the recommendations provided in the Concession Management Plan and resulting from the training sessions and assessments, the Deputy Municipal Manager committed to implementing the key recommendations in alignment with the SA5 agreement.

LESSONS LEARNED

THE IMPORTANCE OF HIGH-LEVEL POLITICAL SUPPORT

Strong political support at the local level was a major reason the Concession reached financial close. This included key actors such as the Mayor, Municipal Manager, Speaker of the Town Council, and Minister of Local Government and Constitutional Affairs. President Mandela and his post-apartheid government were open to private sector participation. However, PPPs in South Africa saw a dramatic decline in popularity with a
transition in national leadership to those with greater mistrust of the private sector.

National government’s stance toward PPPs shifted from facilitation to regulation. National-level guidelines were issued in 2005 requiring a series of PPP preparation steps and National Treasury approvals all of which added time, complexity, and expense on the part of the private sector, making PPPs less attractive.

Today, there is renewed interest in PPPs at the national level. Similarly renewed high-level support for municipal PPPs could help this revival. Examples of such support would involve efforts to reform and consolidate national legislation affecting municipal PPPs, including the MSA, MFMA, and other procurement rules and PPP guidelines.

DEALING WITH THE HIGH COSTS OF PPP DEVELOPMENT AND IMPLEMENTATION

Proper PPP preparation is expensive and project preparation funding support can play a critical role in moving projects past this stage. The preparation of the Mbombela Concession saw costs escalate because of the time taken to reach contract signature and high costs of international consultants. Financial support from DBSA and USAID was important. Contract renegotiations also involved considerable costs for both sides. The cumulative effect likely influenced the way the Concessionaire responded to revenue changes.

A first step in dealing with this reality in many countries has been the creation of a project development fund (PDF) for use in financing the preparation of bankable PPP projects. A recent review of PPP legal and regulatory frameworks by the World Bank found that 20% of the 140 countries surveyed (including 30 high income countries), had created PDFs for this purpose. Standardization of the PPP preparation process can also assist in reducing the time and cost involved in PPP preparation, provided such guidelines do not become overly prescriptive or compliance too onerous.

PUBLIC SECTOR FUNDING

In Mbombela, the original expectation was that the Concession would be primarily financed by the private sector, but it became clear early on that more public support was needed and DBSA provided concessional financing. Government grants also proved critical in funding both ongoing investment and operating costs.

This public-private sharing of the financial burden of PPP investment, as occurred in Mbombela, is perhaps the biggest change in brownfield concessions since the late 1990s. World Bank data shows that, by 2015, most of the funding for PPPs in developing countries was coming from governments, multilaterals, and bilateral institutions, with the private sector contributing only 41 percent.

One approach to dealing with this new financial reality is to acknowledge that, in a growing number of cases, government guarantees are needed to make PPPs viable. This is something that the South African government was long reluctant to consider until the successful implementation of the Renewable Energy Independent Power Provider (IPP) Program demonstrated how effective such guarantees could be. Guarantees are now a common

feature of new long-term PPPs in developing countries.

THE IMPORTANCE OF CONTRACT PERFORMANCE MONITORING

Establishment of a sound PPP contract management system that allows effective oversight of the implementation process is critical to facilitating the success of PPPs. In Mbombela, the Concession contract provided for performance monitoring, which proved successful in the early years. However, a loss of key officials in the municipality in the 2000s resulted in little to no municipal monitoring of the Concessionaire’s financial or technical performance that did not come directly from the Concessionaire. This is one of the biggest failures of the project.

Internationally, PPP project management is now a well-developed discipline. If municipal-level PPPs begin to be developed again in South Africa, a central government agency might be the most cost-effective solution to contract compliance monitoring. This would guarantee a standardized, comprehensive approach, and full public disclosure of performance information. Such an agency could also benefit from technical assistance support from international donors and development finance institutions.

RECOGNIZING SITUATIONS IN WHICH PPPS ARE NOT ADVISABLE

While Mbombela demonstrated convincing reasons for applying a PPP approach at the outset, this has not been the case universally. PPPs continue to play a relatively small role in total infrastructure investment, averaging between 15–20% of investment in middle- and upper-income countries, according to various sources. In low-income countries, the use of PPPs (other than IPP projects) has been virtually nonexistent. There are two reasons for this limited use.

First, governments traditionally use their own public resources to fund most infrastructure investments. Compared with PPPs, this method is usually a faster, less complicated, and less expensive way of meeting investment needs. In many jurisdictions, it makes more sense to empower local public officials to carry out traditional public investment than it does to prepare them to do an occasional PPP project. The City of Mbombela had a reasonably strong technical and engineering staff at the end of the 1990s and could have built and managed their own infrastructure improvements if funding had been available.

Second, municipalities that are poorly managed, have high levels of corruption or are not creditworthy, usually cannot attract private investment on their own. Better managed municipalities increase the likelihood of a PPP being commercially viable and are more attractive to private investors. Money is not well spent on PPPs intended to compensate for weak or corrupt municipal management. Again, in the case of Mbombela, municipal management in the late 1990s was relatively sound and Senior Municipal Managers demonstrably competent. This helped in convincing private companies to tender for the Concession, despite its intrinsic challenges.

The Mbombela Concession is set to expire in 2029, and the City has begun investigating options for water service provision in the future. It is unlikely that a similar concession model will be an attractive option; rather, the City should explore a wide range of delivery options, including newer

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private sector participation models such as performance-based contracting, an incentivized form of service contract.\textsuperscript{25}

THE NEED FOR A FLEXIBLE, BUT REGULATED, APPROACH TO PPP CONTRACT RENEGOTIATION

Contract renegotiation should be recognized as a common feature of long-term PPPs, as was provided for in the Mbombela Concession. Renegotiation does not necessarily mean that the project is in crisis, or the contract is deficient in some major way—but this was not always the case 20 years ago when there was a tendency to view contract renegotiation as a problem or crisis, rather than ability to respond to inevitable, even if unexpected, changes. Modification and renegotiation of PPP contracts need to be regulated to reduce incentives to use these changes opportunistically by either party. Renegotiation regulations are now common in developing countries and include requirements for third-party approvals and limitations to modifications of the scope of the contract, its risk allocation, the financial and/or economic balance, duration, and agreed price/tariff/annuity payments.\textsuperscript{26}
