Original Paper

Lessons Learned from Mbombela, South Africa, in

Public-Private Partnerships in the Water Sector

Dr. Jeremy D. Gorelick^{1*} & Neil Diamond²

¹ Johns Hopkins University (Whiting School of Engineering), Baltimore, Maryland

² City of Mbombela (Former Municipal Manager), Nelspruit, Mbombela, Mpumalanga South Africa

* Dr. Jeremy D. Gorelick, Johns Hopkins University (Whiting School of Engineering), Baltimore, Maryland

Received: November 21, 2019Accepted: December 10, 2019Online Published: December 12, 2019doi:10.22158/se.v5n1p37URL: http://dx.doi.org/10.22158/se.v5n1p37

Abstract

For urban dwellers around the world, basic water services are provided by city administrations. However, in developing countries, cities lack both the human and financial resources to ensure adequate services, particularly to some of their most vulnerable populations. As a result, public entities often consider turning to the private sector for assistance, which may lead to a series of adverse and unintended consequences. The following case study describes the experiences of the South African city of Mbombela, arguably one of the most successful Public-Private Partnerships (PPPs) in the water sector in sub-Saharan Africa, through its successes and challenges.

Keywords

water, municipal services, South Africa, public-private partnerships

Note on definitions: Generally, there are two common forms of PPP structure: availability and concession-based PPPs. The two forms can be distinguished from each other based on what the public or private parties assume within the partnership (e.g., rights, obligations and risks).

Availability PPPs are structured such that the public authority contracts with a private sector entity to provide a public good, service or product at a constant capacity to the implementing agency for a given fee and a separate charge for usage of the public good, product or service. Fees or tariffs are regulated by contract to provide for recovery of debt service, fixed costs of operation and a return on equity.

Concession PPPs, on the contrary, are structured such that the government grants the private sector the right to build, operate and charge public users of the public good, infrastructure or service, a fee or tariff which is regulated by public regulators and concession contract. As in the case of availability

1. Introduction

Public-private partnerships are increasingly popular as solutions for delivery of some of the most basic services across the global south. Although practitioners differ on their universal validity, asserting that they are not "silver bullets" in all instances, there is value to considering how they have functioned in a variety of circumstances and sectors (DESA, 2016). Through analytical review, the authors of this paper argue that, in the global south, PPPs can achieve better results than service delivery solely through the public sector.

2. Methodology/Context

The paper assumes a case-study approach; within the larger field of qualitative approaches, case study research involves the study of an issue explored through one or more cases within a bounded system (in this instance, a single municipality and its experiences over time as a participant in a public-private partnership), through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, documents, and reports). The data are fused into a case description from which the researcher draws results and recommendations (Stake, 1995). The following argument, therefore, rests heavily on data collected from key municipal officials as well as from the municipality's executive official, its Municipal Manager (a co-author of this paper).

Following a detailed chronicle of the rationale for establishing a PPP and its functioning over a period of twenty years, the authors close with their insights on lessons learned from the City of Mbombela and ways in which these observations might be useful to a broader audience.

2.1 Why a PPP?

1994 was a watershed year in South Africa; the end of apartheid was marked by the country's first democratic elections by the entire population, and sub-national boundaries were substantially redrawn to allow for inclusiveness whereby the predominantly white cities were expanded to encompass the predominantly black townships and informal settlements by which they were surrounded. In one of the most striking examples in the eastern part of the country, the capital of Mpumalanga Province (Nelspruit) experienced a dramatic increase in its boundaries (by more than eightfold in area) to form the Nelspruit Transitional Local Council (the Council), and its population, from 24,000 to 230,000 (MDB,1995). However, an increase in population did not equate to an increase in budget, and the Council's revenue grew by only 38% (Nelspruit MTREF, 1996-1999).

In an effort to provide needed services to its entire constituency, the Council sought expert advice from external entities. As part of this effort, the Development Bank of Southern Africa (DBSA), a development finance institution domiciled in and capitalized by the South African government, conducted an analysis. This detailed financial review calculated that a Council investment of approximately 250 million Rand (approximately 54.3 million US dollars at an exchange rate of 4.6 Rand to 1 US dollar) would be needed to upgrade the Council's water and sanitation services. However, the Council's budget for water and sanitation (about one-third of its total budget) was 8.5 million Rand

per year, and it was not allowed to increase by more than 6% per year. This financing gap was impossible to close with available own-source finance, and the Council began an exploration of innovations that would allow it to access the funds required—either on their own or in partnership with other entities—to deliver water services.

To raise the required finance, the Council deliberated between several options, including:

(1) Operating the system and incurring long-term debt to cover capital costs of the system

(2) Establishing a new company, owned by the city, to operate and manage the system which would raise debt off of the city's balance sheet

(3) Sell the city's water and sewage assets to a private company

(4) Entering into a service contract with a private company for operation but still responsible for incurring long-term debt to cover capital costs of the expansion of the system

(5) Entering into a management contract with a private company but still responsible for incurring long-term debt to cover capital costs of the expansion of the system

(6) Entering into a long-term agreement, or a public-private partnership, with a private company responsible for management, operation and investment into the system

2.2 Initiating PPP Concessions in Post-Apartheid South Africa

After lengthy deliberation, the Council determined that a public-private partnership would be the most effective way of ensuring effective and efficient water delivery to the local population without losing full control of the desired outcomes (universal access to water) or taking on an unsustainable debt burden as the city itself or through a city-owned company. Due to the relatively-limited experience in South Africa in the structuring of PPPs, and a lack of any legislative or policy framework, public entities relied on external support for the structuring of agreements. In the case of the Mbombela PPP, the Municipal Infrastructure Investment Unit, an independent entity set up with USAID funding and based in DBSA, provided grant funding towards the considerable costs involved in this process.

Because public-private partnerships were a new phenomenon in South Africa and, accordingly, there were many misconceptions during the deliberation and early implementation of the PPP. Some were internal to the city's workforce—the local union rose up in opposition to the potential job loss created by the out-sourcing of public jobs to the private sector—while others were legal in nature—the Council had not included a draft concession agreement in the initial bid documentation, so that the contract had to be negotiated without an initial framework for it in place.

Critical further complications arose from constitutional issues around the legislation on PPPs as well as the provision of basic water. New post-apartheid legislation—particularly the Local Government Transition Act of 1993 and the Water Services Act of 1997—gave latitude to sub-national government for the structuring of PPPs, but also permitted national government officials to intervene and restructure contracts and, where deemed necessary, to seize assets. The South African government enacted legislation in 2001 which entitled all households to free basic water, an amount of at least six cubic meters per household, which some later misinterpreted to mean free water regardless of volume. The

combination of these pieces of legislation initially troubled commercial bankers, who were already concerned about the unfamiliar territory of financing water PPPs, who ultimately decided not to participate as financiers in the transaction.

2.3 The Mbombela PPP: Nuts and Bolts

The concession, a 30-year agreement, called for the project company, known then as the Greater Nelspruit Utility Company (later renamed to Silulumanzi, or "water bucket" in the local siSwati language), to operate, maintain and manage the existing water and sewerage system as well as to arrange funding for both the refurbishment of existing assets as well as system expansion. The agreement called for a capital investment of 83 million Rand (or 13.6 million US dollars, using an exchange rate of 6.1 Rand to 1 US dollars) for the first five years, of which 25% was to be financed by equity. The concession agreement would be revisited every 5 years as a measure to reflect, review and rebalance the agreement between the city and the concessionaire. As per the legal terms, every five years, the City and the concessionaire would enter into a binding supplementary agreement.

2.4 Interim Look-Back (2009)

In 2009, after the first ten years had elapsed, independent experts conducted an interim review of the effectiveness of the PPP. Their report (Bender & Gibson, 2009) found that, on the whole, the concession had been a qualified success, as the urban population benefited from a "strong" water and sanitation operator that provided "excellent" water and effluent quality both objectively and in relation to its peers. More important, their review indicated that "virtually every household [had] access to water—in 1999, it was estimated that 45% of the then 45,000 households in the concession area did not have access to any water supply ... [while, at the time of the report], 94% of the 74,000 households [had] access to the formal water system and 88% receive[d] water on a daily basis." To help the city to achieve its goals of expanding the network to the entire urban population in line with the PPP agreement, "Silulumanzi had executed R136 million of the R189 million of projects required by the original contract and subsequent supplementary agreements." However, "over 50,000 households, [or 68% of the total population] still [did] not have access to a 24-hour supply of water."

2.5 Interim Look-Back (2019)

Twenty years into the concession, both the public and private sector were less sanguine; a new report found that both sides had failed to meet their respective responsibilities (PDG, 2019). Namely, the concessionaire had not "invest[ed] sufficiently in new infrastructure and renewal of existing infrastructure," "not met the targets in improving the continuity of water supply in terms of days for which households have access to water and hours per day," and "had too little success with water demand management and revenue collection in rural and peri-urban areas, with no funding allocation for fecal sludge management." Similarly, the city had "neglected its role in the partnership," through "not paying agreed amounts and not allocating grant funds to the concessionaire as required," "not implementing arrangements to enforce bylaw compliance, with necessary political backing," and demonstrated overall "poor monitoring of the contract." This final point was made explicitly clear

when, upon review, it became apparent that the city had handed responsibility for ensuring the achievement of key performance indicators to a monitoring unit compensated by Silulumanzi, effectively allowing the concessionaire to oversee and monitor its own without any oversight from the city.

In spite of these challenges, as a result of the concession, the city of Mbombela was able to achieve better results than it anticipated it could have achieved without the private sector. As an example, service to the residents in the peri-urban area around the city, Nsikazi, has more than doubled (from coverage of 18,746 users in 1999 to 43,234 users in 2019). Water coverage had steadily increased relative to the overall population, and billing and collection efficiency outpaced its peers across the country. During the concession period to-date, from 1999 to 2019, billing efficiency has averaged at 96% (compared to a national average of 65% over the same time period); collection efficiency has similarly outpaced national performance (80% in Mbombela relative to 45% nationally) (Silulumanzi, 2019).

2.6 Looking to the Future (2019-2029)

Each of the interim look-backs has provided necessary points of reflection for the city. In 2009, both parties in the PPP were able to review the past performance of the PPP and appreciate what they had achieved with clear opportunities for improvement in the future. In 2019, however, the city was able to clearly see from its analysis that the concession had not benefited peri-urban and rural areas as much as had originally been anticipated. The City had limited institutional memory after 20 years of the concession and lacked knowledge and critical skills on how a PPP should function. The financial, commercial, legal and engineering capacity was limited to the core business of the City and a significant skills gap existed in the administration of PPPs.

Through the help of American government (through USAID WASH-FIN), the Danish government, and the Stockholm International Water Institute, the city was able to re-cement its position as an equal partner in the PPP and assert its expectations with regard to capital investments in the water sector. As a result of this support, which culminated in a re-negotiation of expectations, the city was able to legally bind the concessionaire to the provision of 500 million rand (38.5 million USD at a 2019 exchange rate of 13 Rand to 1 US dollars) over the next 5 years of the Concession. The final supplementary agreement for the remaining 5 years of the concession (2024-2029) will set the guidelines for a Section 78 study to determine the future of the water concession and outline the procurement process for finding a suitable concessionaire.

3. Lessons Learned

Careful analysis of the experience in Mbombela can be highly instructive for other public entities contemplating the structure of a partnership with private sector service providers. Some of the most important lessons from Mbombela include:

1) Before entering into a PPP, the public sector needs to carefully articulate its expectations from the partnership. In the case of Mbombela, the PPP was the only way in which the city thought that it would be able to achieve its investment goals, which centered on the provision of basic, regular water services to the city's most vulnerable population. High-quality water for all of the city's residents was an important, but ancillary, goal, and the concessionaire prioritized water quality over universal, 24-hour water access.

2) The public sector must negotiate as an equal partner in the PPP structuring. During initial concession negotiation, and during subsequent supplementary agreements, the public sector allowed the private sector to dictate terms, a trend originating from a lack of institutional memory and a weak understanding of PPP's combined with no proper skills, an unbalance in the power relationship and a perceived reliance on the private sector.

3) A partnership is best achieved when both sides equally share in the risks. Silulumanzi was confident that, in the case of insufficient revenue collection from end-users, the city itself would make up the difference through its grant transfers from the central government and other municipal resources. The private sector was not equally participating in collection risk, although it was guaranteed a minimum internal rate of return on its investment of 18.5%. The PPP after 20 years looked more like an OEM with substantial risk especially on planning still vested with the city.

4) Both sides need to be vigilant throughout the concession to ensure that goals are met. Mbombela effectively delegated its responsibility for contract management to Silulumanzi when it began to cover the costs of the contract monitoring unit. A concession unit established in the city and paid by the concessionaire was dysfunctional, and the Council needed to work with the concessionaire to overcome the conflict of interest created through this interlinkage as well as to establish clear roles and responsibilities for accountability and oversight.

Acknowledgements

This analysis has been produced by Neil Diamond, former municipal manager for the City of Mbombela during its negotiation of Supplementary Agreement No. 5, and Dr. Jeremy Gorelick, former global head of infrastructure finance for USAID's WASH-FIN program. The data referenced in this article has been graciously provided by the municipal management in the City of Mbombela. Both authors would like to thank their families for their support in the preparation of this paper.

References

Bender, P., & Gibson, S. (2009). Report on the first 10 years of the Mbombela (Nelspruit) Water and Sanitation Concession (commissioned by by the World Bank at the request of the Public Private Partnership Unit of the National Treasury of the South African Government and the Mbombela Local Municipality). Pretoria, South Africa.

DESA Working Paper No. 148. (2016). Public-Private Partnerships and the 2030 Agenda for 42 Published by SCHOLINK INC. Sustainable Development: Fit for purpose? Retrieved from https://www.un.org/esa/desa/papers/2016/wp148_2016.pdf

- MDB, Municipal Demarcation Board. (1995). *Municipal Demarcation of the Republic of South Africa*. Pretoria, South Africa.
- NELSPRUIT TLC. (1996-1999). *Multiyear Medium Term Revenue and Expenditure Budget*. Nelspruit, Mpumalanga, SA.
- PDG, Palmer Development Group. (2019). *Mbombela Water Concession 20 year review (commissioned by Mbombela Municipal Council)*. Mbombela, Mpumalanga, SA.
- Silulumanzi. (2019). *Research Data provided by the Concession Monitoring Unit*. Nelspruit, Mbombela, Mpumalanga, SA.

Stake, R. (1995). The Art of Case Study Research. Thousand Oaks, CA: Sage.