



Confederation of Danish Industry



This document is an initial overview. Please send any comments to [mes@voluntasadvisory.com](mailto:mes@voluntasadvisory.com)

# Public-Private Partnerships in South Africa

A very brief introduction

6 September 2017

# Agenda

- **Definitions of PPPs**

- Regulations of Water PPPs in South Africa

- Past and current water PPPs in South Africa: Overview and Case Studies

- Barriers and Solutions

- Appendix

# Key principles for this project

## **PPPs are only one of many ways to improve water access and meet financing needs**

- We want to highlight its potential, but never to the detriment of other more effective and/or locally-appropriate approaches

## **We do not recommend a one-size-fits all approach to PPPs**

- We raise awareness of potential types of PPPs, but never push through any off-the-shelf approach

## **The Setting up of a PPP is beyond our scope**

- We hope that more PPPs are started if they prove to be the best option, but that is beyond our scope
- Any PPP must of course follow the standard procedure in SA



**We are taking a bottom-up approach to find out if PPPs are the right choice in a South African context**

# PPPs have two key features: (1) the private actor provides services/goods, and (2) assumes a greater degree of risk

“South African law defines a PPP as a **contract between** a **public** sector institution/municipality and a **private** party, in which the **private** party **assumes substantial financial, technical and operational risk** in the design, financing, building and operation of a project.”

- Republic of South Africa Department of National Treasury, PPP Unit

“A **long-term** contract between a private party and a government entity, for **providing a public asset or service**, in which the **private party bears significant risk** and management responsibility, and remuneration is linked to performance.”

- PPP Knowledge Lab\*

# PPP types are differentiated according to the allocation of responsibilities, either to public or private actor

|                            | Utility<br>Restructuring<br>Corporatization<br>Decentralization | Civil Works<br>Service<br>Contracts | Management<br>and Operating<br>Contracts | Leases/<br>Affermage | Concessions<br>BOT Projects<br>DBOs      | Not relevant                                                 |                                              |
|----------------------------|-----------------------------------------------------------------|-------------------------------------|------------------------------------------|----------------------|------------------------------------------|--------------------------------------------------------------|----------------------------------------------|
|                            |                                                                 |                                     |                                          |                      |                                          | Joint Venture/<br>Partial<br>Divestiture of<br>Public Assets | Full Divestiture                             |
| Asset<br>Ownership         | Public                                                          | Public                              | Public                                   | Public               | Public (For<br>BOTs: Public-<br>Private) | Shared                                                       | Private                                      |
| Commercial<br>Risk         | Public                                                          | Public                              | Public                                   | Shared               | Private<br>(Public for<br>DBOs)          | Shared                                                       | Private                                      |
| Capital<br>Investment      | Public                                                          | Public                              | Public                                   | Public               | Private                                  | Shared                                                       | Private                                      |
| Fee collection             | Public                                                          | Public                              | Public                                   | Private              | Private                                  | Private                                                      | Private                                      |
| Operation &<br>Maintenance | Public                                                          | Shared                              | Private                                  | Private              | Private                                  | Private                                                      | Private                                      |
| Typical<br>duration        | -                                                               | 1-2years                            | 3-5years                                 | 8-15years            | 25-30years                               | -                                                            | Indefinite (may<br>be limited by<br>license) |

Source: World Bank Group. PPP. <https://ppp.worldbank.org/public-private-partnership/agreements>  
 South African Institute of International Affairs, (2005). Assessing Public-Private Partnerships in Africa, p. 4; Voluntas Analysis

# Agenda

- Definitions of PPPs

- **Regulations of Water PPPs in South Africa**

- Past and current water PPPs in South Africa: Overview and Case Studies

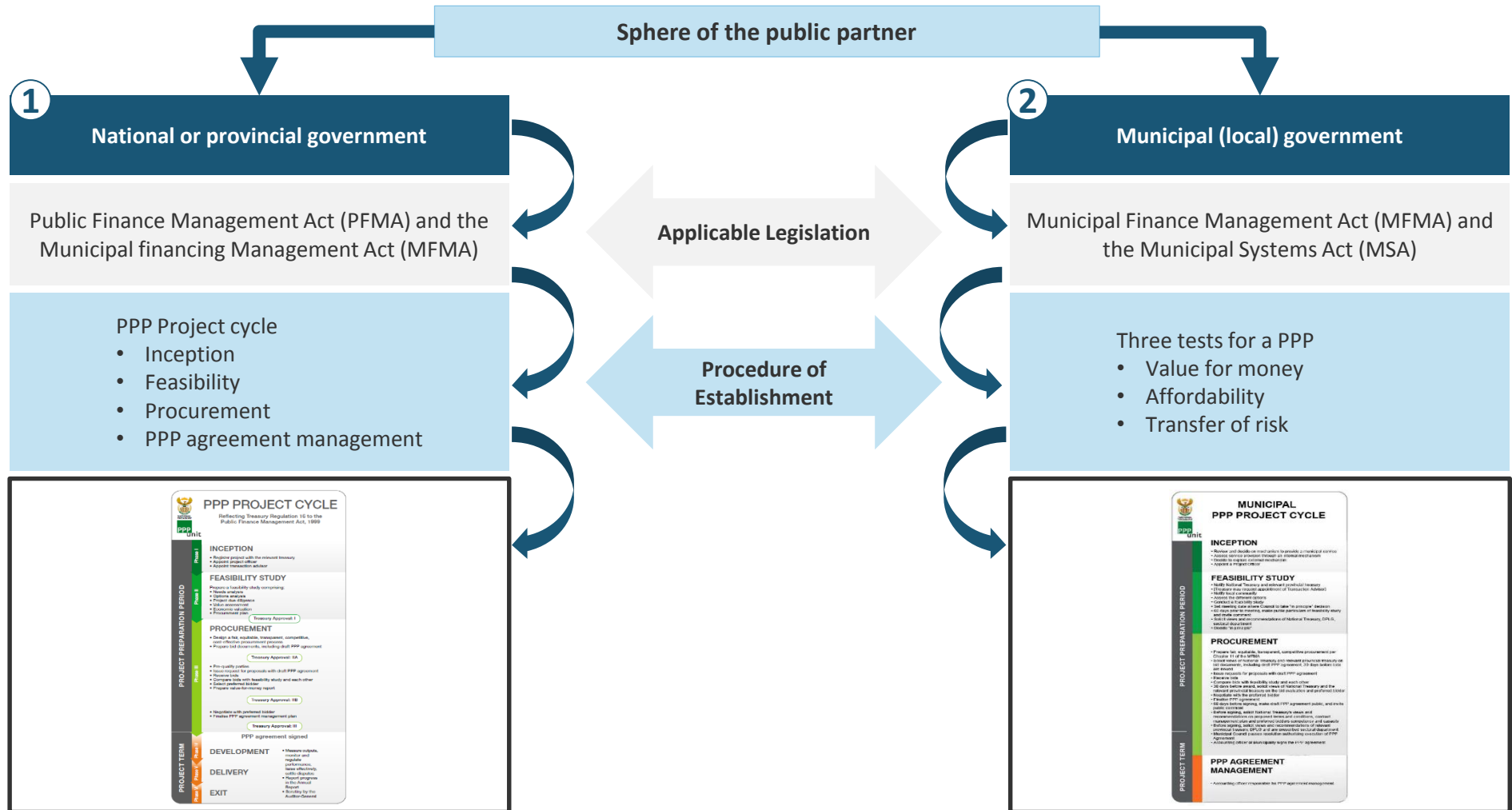
- Barriers and Solutions

- Appendix

# Water PPPs are regulated both on national and municipal level

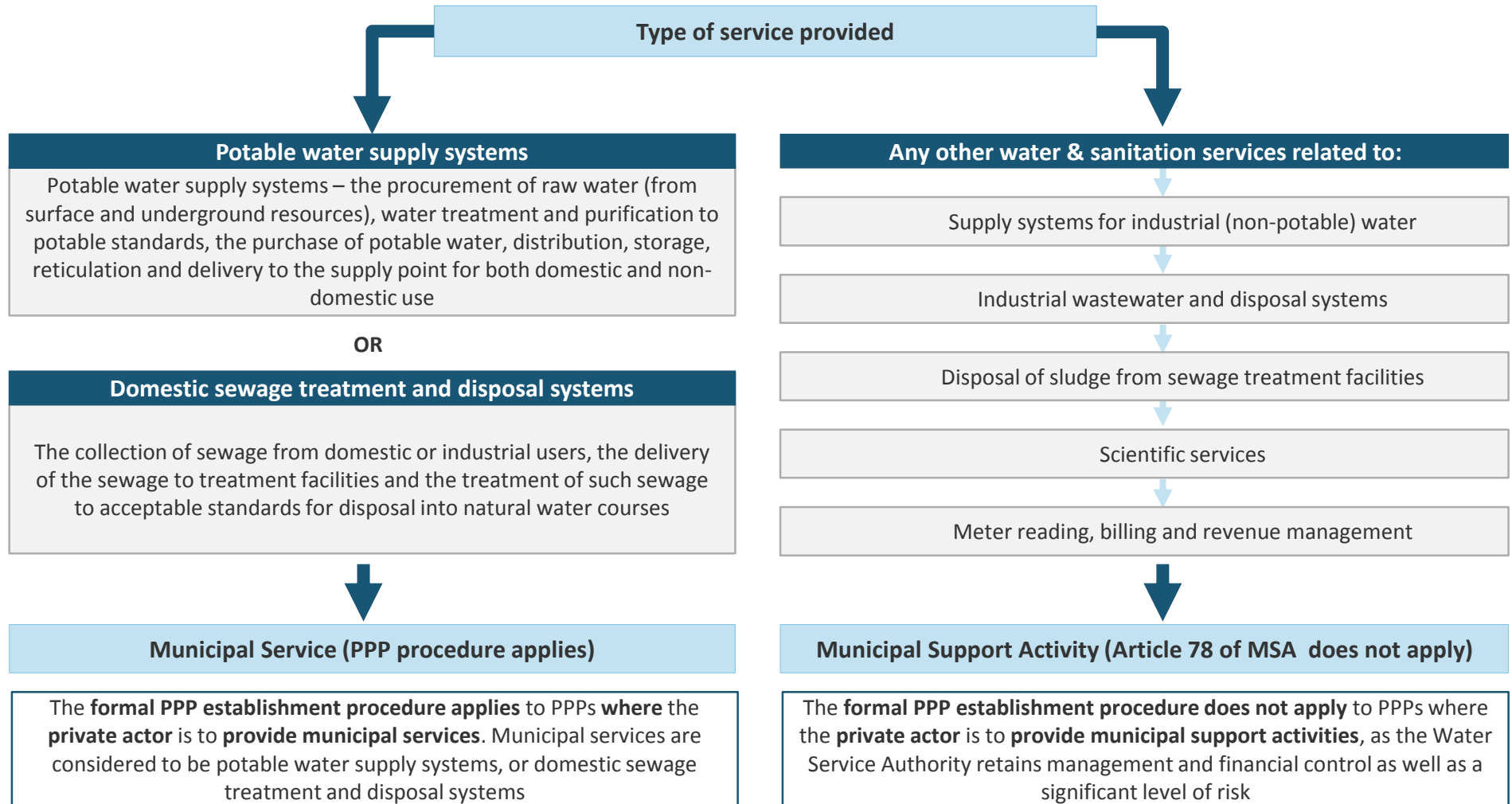
| <b>National Regulation</b><br><i>(National and Provincial PPPs, Water Boards, Water Research Commission, other water owners under PFMA schedule 3B)</i>                                                                                                                    | <b>Municipal Regulation</b><br><i>(Water Service Authorities, Water Service Providers)</i>                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Water Services Act no. 108, 1997</b> <ul style="list-style-type: none"> <li>• Includes general legislation on the WSAs and their duties</li> <li>• The Act regulates the procurement mechanisms in which WSAs may engage when outsourcing municipal services</li> </ul> |                                                                                                                                                                                                                                                                     |
| <b>National Water Act, 1998</b> <ul style="list-style-type: none"> <li>• Encompasses regulation on the water sector in general</li> <li>• Informs the pricing strategy for water use charges and financial assistance for municipalities</li> </ul>                        |                                                                                                                                                                                                                                                                     |
| <b>Public Finance Management Act, 1999 (PFMA)</b> <ul style="list-style-type: none"> <li>• Treasury Regulation 16 issued to the PFMA</li> <li>• Defines the PPP project cycle for provincial and national PPPs, where municipal services are provided</li> </ul>           | <b>Municipal Finance Management Act, 2003 (MFMA)</b> <ul style="list-style-type: none"> <li>• Governs financial affairs of municipalities; establishes treasury norms and standards for the local sphere of government.</li> <li>• Ch.11 addresses PPPs.</li> </ul> |
|                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                     |
| <b>Municipal Systems Act, 2000 (MSA)</b> <ul style="list-style-type: none"> <li>• States when the municipality must review and decide on a mechanism to provide a municipal services.</li> <li>• When private actor provides municipal services.</li> </ul>                | <b>Municipal Public-Private Regulations, 2005</b> <ul style="list-style-type: none"> <li>• Addresses the PPP provisions in both the MSA and the MFMA, and matters in the MFMA related to the procurement of multi-year PPP agreements.</li> </ul>                   |

# The establishment process of a PPP depends on the public actor's position within the government spheres



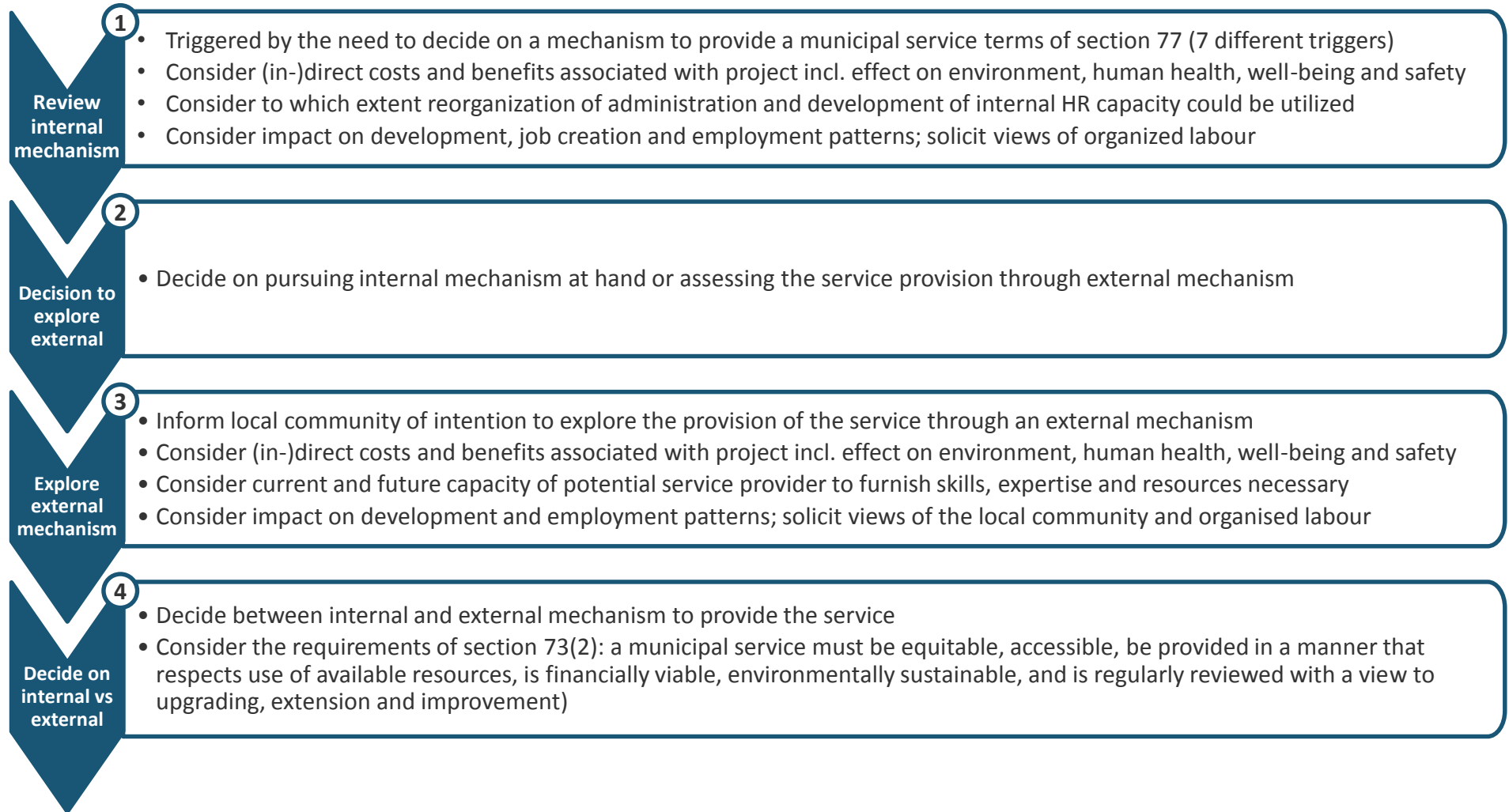


# The formal PPP procedure applies when private actors provide municipal water/sanitation services



# Art. 78 of the Municipal Systems Act no.32 of 2000

## prescribes four steps to starting a PPP



# Agenda

- Definitions of PPPs
- Regulations of Water PPPs in South Africa

**• Past and current water PPPs in South Africa: Overview and Case Studies**

- Barriers and Solutions
- Appendix

# (1) South Africa has experience in establishing successful water and wastewater PPPs

## INITIAL CLASSIFICATION – TO BE DISCUSSED

| PPP Type 1* | PPP Type 2           | Contract Period | Service Provided                                                             | Municipality                            | Private Partner                         |
|-------------|----------------------|-----------------|------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------|
| ●           | Lease Contract       | 1995-2000       | Abstraction, purification, distribution, wastewater collection and treatment | Stutterheim                             | WSSA                                    |
| ●           | Lease Contract       | 1995-2000       | Abstraction, purification, distribution                                      | Fort Beaufort                           | WSSA                                    |
| ●           | Operate and Maintain | 1999-2024       | Abstraction, purification, distribution, wastewater collection and treatment | Queenstown                              | WSSA                                    |
| ●           | Concession           | 1999-2029       | Abstraction, purification, distribution, wastewater collection and treatment | Mbombela (Town of Nelspruit)            | Sembcorp Silulumanzi                    |
| ●           | Concession           | 1999-2029       | Water purification and distribution, wastewater collection and treatment     | Illembe DM (Dolphin Coast)              | Siza Water Company                      |
| ●           | BOT                  | 2001            | Built, operates and maintains wastewater treatment works                     | eThekwin; WSA = eThekwin Water Services | Durban Water Recycling (Pty) Ltd.       |
| ●           | Management Contract  | 2001-2006       | Management contract providing expertise                                      | Johannesburg MetroM                     | Johannesburg Water Management (Pty) Ltd |
| ●           | BOT                  | 2002 - Current  | Financed, operates and maintains water and sewerage bulk infrastructure      | Rustenburg Water                        | WSSA                                    |
| ●           | Management contract  | 2005-2011       | Management contract providing expertise                                      | Maluti-a-Phofung LM                     | Uzinzo Water Services                   |

\*) The formal PPP establishment procedure only applies, if private actors provide municipal services:

● = Municipal services

● = Municipal support activity

Note: \*\*) On behalf of Rustenburg Trust; before: Magalies Water. WSSA = Water and Sanitation Services South Africa Ltd.

Source: Own research

## (2) South Africa has experience in establishing successful water and wastewater PPPs

### INITIAL CLASSIFICATION – TO BE DISCUSSED

| PPP Type 1* | PPP Type 2                | Contract Period | Service Provided                                                                                           | Municipality                    | Private Partner           |
|-------------|---------------------------|-----------------|------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------|
| ●           | BOT                       | 2012            | Built (partially), operates and maintains the Northern works                                               | Johannesburg Water              | WEC Projects (Pty) Ltd    |
| ●           | Operate and Manage        | 2014-2016       | Manages, operates and maintains water treatment facilities                                                 | King Cetshwayo DM               | WSSA                      |
| ●           | BOT                       | ? - Current     | Refurbishment of potable water treatment plant and subsequent operation for 14months                       | Ndlambe LM                      | Veolia water technologies |
| ●           | Operate and Maintain      | ? - Current     | Operates and maintains Zandvliet wastewater treatment works                                                | Cape Town                       | WSSA                      |
| ●           | Research Study            | 1999-2000       | Project Management (Research Studies)                                                                      | Durban MetroM                   | Vivendi Water             |
| ●           | BOT (pressure management) | 2005-2010       | Built, operated and maintained an advanced pressure management installation to reduce revenue water losses | Emfuleni LM                     | WRP Pty Ltd               |
| ●           | Operate and Maintain      | 2010-Current    | Operates and maintains desalination plant                                                                  | Mossel Bay LM                   | Veolia water technologies |
| ●           | -                         | 2011            | Provides funding for water demand management activities                                                    | Emfuleni LM                     | Sasol New Energy and GIZ  |
| ●           | Operate and Maintain      | ? - Current     | Operates and maintain wastewater treatment works for the generation of Biogas                              | Ekurhuleni MM (East Rand Water) | Barloworld Power          |

\*) The formal PPP establishment procedure only applies, if private actors provide municipal services:

● = Municipal services

● = Municipal support activity

Note: \*\*) WSSA = Water and Sanitation Services South Africa Ltd.

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## (2) South Africa has experience in establishing successful water and wastewater PPPs

### INITIAL CLASSIFICATION – TO BE DISCUSSED

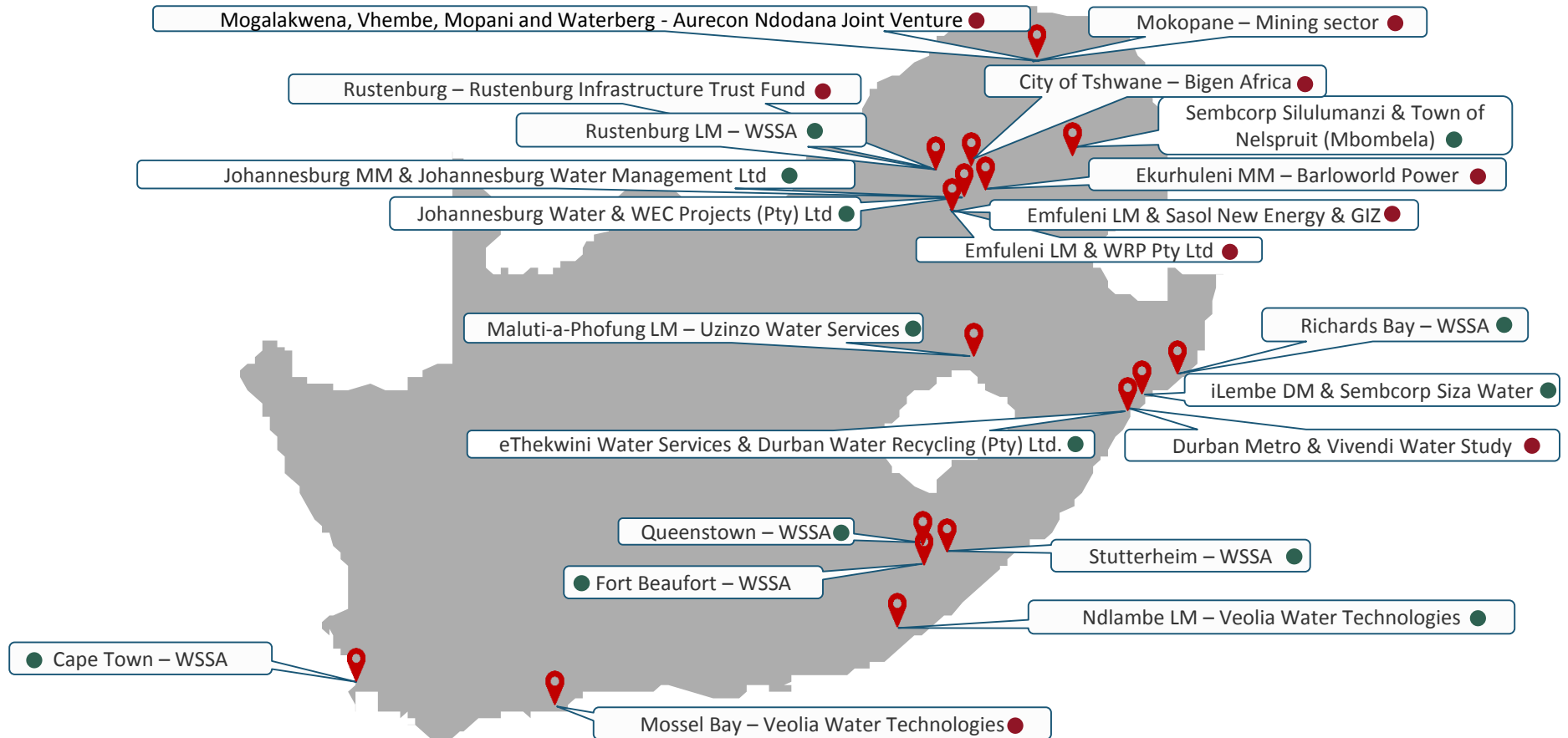
| PPP Type 1* | PPP Type 2    | Contract Period | Service Provided                                                                                                            | Municipality                              | Private Partner                      |
|-------------|---------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------|
| ●           | BOT           | ? - Current     | Consulting services for the construction of a water purification plant; subsequent operation and maintenance by water board | City of Tshwane                           | Bigen Africa; Magalies Water         |
| ●           | Joint venture | ? - Current     | Funding for the construction of pipeline from dam                                                                           | Mogalakwena LM; Town of Mokopane          | Mining sector                        |
| ●           | Joint venture | ? - Current     | Capital Investment to extend Olifants river catchment area                                                                  | Mogalakwena, Vhembe, Mopani and Waterberg | Aurecon Ndodana Joint Venture (ANJV) |

\*) The formal PPP establishment procedure only applies, if private actors provide municipal services:

● = Municipal services

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# PPPs have taken place across South Africa

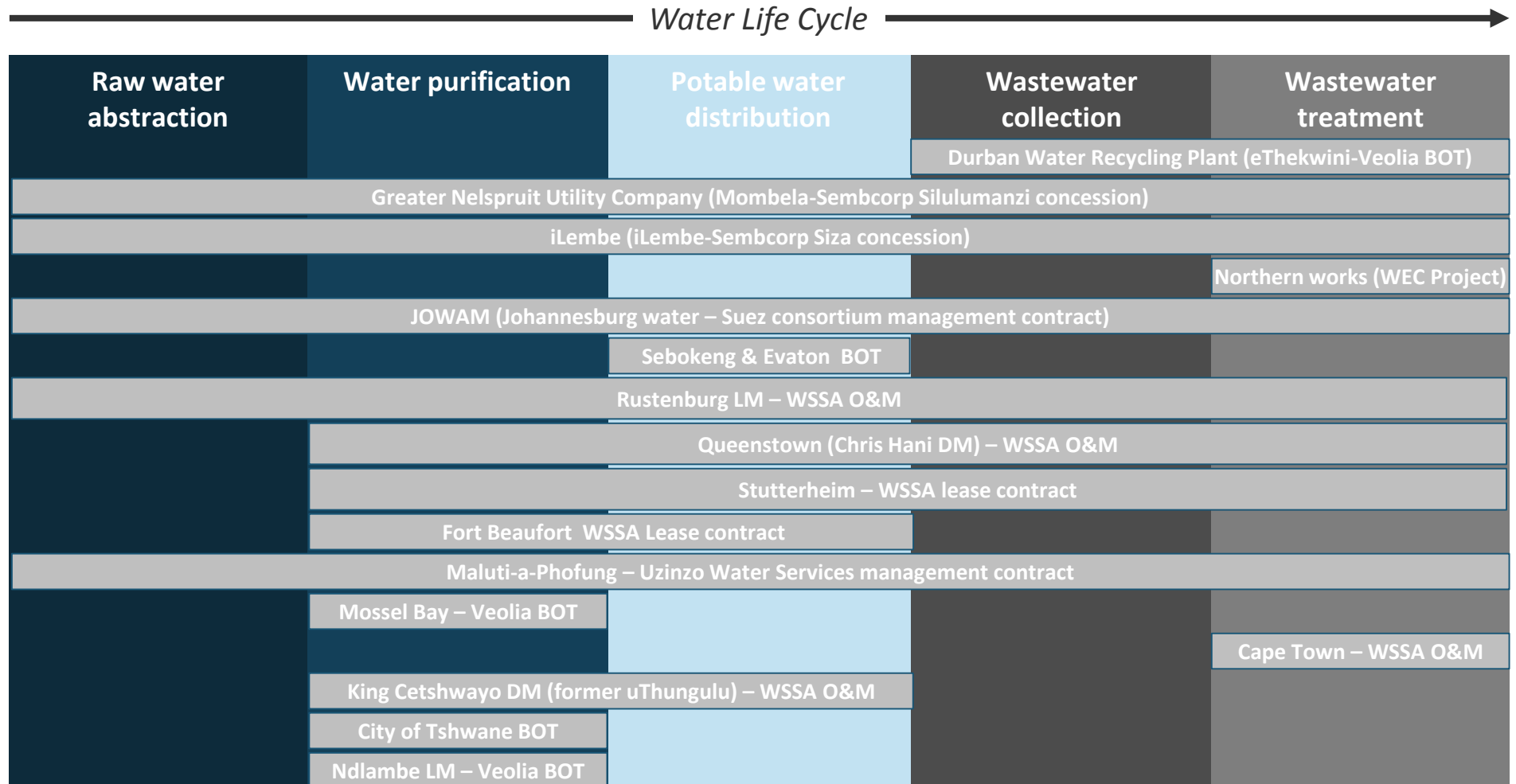


\*) The formal PPP establishment procedure only applies, if private actors provide municipal services:

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# Most common application areas for PPPs are water purification and wastewater treatment





# Case Study: The Mbombela concession improved quality and access, and left lessons for future PPPs



|  | Water and Waste Water Treatment | Private party | Sempcorp Silulumanzi         | Public party     | Mbombela LM |
|-----------------------------------------------------------------------------------|---------------------------------|---------------|------------------------------|------------------|-------------|
| Timeframe                                                                         | 1999-2029                       | Parent        | SembCorp group, Singapore    | Category / Party | B / ANC     |
| Type                                                                              | Concession                      | Revenue       | 550M USD                     | Population       | 696k (2016) |
| Value                                                                             | -                               | # Employees   | -                            | Informal settle. | %           |
| Risk sharing                                                                      | -                               | Core services | Utilities; Urban development | Bill payment     | -           |
| # People                                                                          | 350k (~50% of pop.)             | # of PPPs     | -                            | Blue drop        | -           |
| Financial detail                                                                  | -                               | # PPPs RSA    | 2                            | Green drop       | -           |

## Case summary

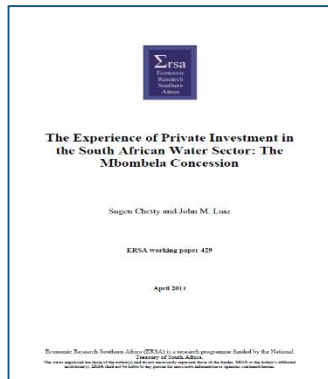
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Background          | <ul style="list-style-type: none"> <li>Water infrastructure in poor condition; High water losses; High rate of non-payment &amp; illegal connections</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                |
| Procurement         | <ul style="list-style-type: none"> <li>A concession for water and waster water treatment for the Mbombela Local Municipality</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Operational history | <ul style="list-style-type: none"> <li>Changes in national policy for free basic water services led to renegotiations of the contract; High NRW due to illegal connections</li> <li>To remedy this, the partners agreed on a decreased need for capital investment; Introduction of service restrictions against non-payers</li> <li>Status as of 2014: Concession is considered to be viable and the area in possession of better water and sanitation services than without PPP; Service provision is reliable; High payment collection rate; NRW reduced to 31%.</li> </ul> |
| Public lesson       | <ul style="list-style-type: none"> <li>M&amp;E of private operator is key, ensure sufficient staff capacity; consider right balance between contract flexibility and stability</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                      |
| Private lesson      | <ul style="list-style-type: none"> <li>Know the service area and the difficulties it comes with; agree terms upfront in case of public takeover</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Assessment          | <ul style="list-style-type: none"> <li>An economic hub is imperative for the financial sustainability of WSPs; PPP supportive policies need to be established</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                       |

Source: 2016/17-2018/19 Annual Budget and MTREF of the Mbombela LM; Economic Research Southern Africa (ERSA). The experience of Private Investment in the South African Water Sector: The Mbombela Concession. (2014).

# Evaluations of the Mbombela PPP suggest that M&E, and stakeholder involvement are key

1

## ERSA – The Experience of Private Investment in the South African Water Sector: The Mbombela Concession



- Overview of the PPP from beginning of the concession contract (1999) to 2014
- Interviews of 12 key stakeholders to the development of the concession, its difficulties and the changes brought by the concession

2

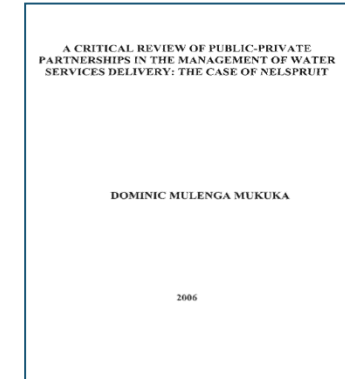
## World Bank – Mbombela (Nelspruit) Water and Sanitation Concession South Africa (2010)



- Thorough, detailed analysis from beginning of concession contract (1999) to 2010
- Focus on every step of the concession contract, including interviews of key stakeholders, a section of lessons learned, and a section with recommendations

3

## Academic review – A critical review of PPP in the management of water services delivery: The case of Nelspruit



- Overview from the establishment of the concession contract to 2006
- Highlights complexity of the establishment of a PPP and its subsequent implementation
- Encompasses lessons & implications learned

**A** PPP needs strong leadership to deal with tensions

**B** PPPs have to engage all stakeholders pro-actively

**C** PPPs have to adapt to local conditions – know your service area

**D** M&E is crucial both from municipal and national level

**E** An economic hub is imperative for financial sustainability of WSPs

**F** Consideration of contract flexibility vs contract stability

**G** A PPP-supportive legal & policy context needs to be established

# ① Back-Up: ERSA lessons learned during the Mbombela PPP



The experience in Mbombela provides useful insight for other developing areas as to how it is possible for private participation in the water sector to result in increased efficiencies without retarding social improvements.

- ① 1. **Concessions need to be carefully managed** with appropriate KPIs to ensure that they are not merely profit focused but are actively pursuing social goals as part of their contract.
- ② 2. **PPPs under a concession contract still require active state participation** in ensuring that the contract conditions are met through strong oversight and monitoring. The public sector cannot completely absolve itself from responsibility by outsourcing through a concession.
- ③ 3. **Know your service area:** The original mandated area was the Nelspruit town council in the municipality but after a new demarcation the concession inherited a bid area outside of Nelspruit. The number of households to be serviced thus grew significantly. The increased responsibility placed pressure on the concession to meet the new demand for water services.
- ④ 4. **Flexibility of contract is important** as changes in national policy for free basic services resulted in renegotiations of the contract and the decrease in capital

investment required during the first five years of the concession. This allowed for balanced accounts.

## 5. In sum-up, the study found that the Mbombela PPP taught the South African public sector that water PPPs could:

- Provide equitable water distribution (even though challenges for the rural areas remain)
- Improve water quality
- Improve efficiency in decision-making, fault resolution, and project execution
- Fund themselves
- Scale-up capital investment (water reticulation system, such as pipes, payment meters, and pumps for maintenance and expansion)
- Implement a comprehensive asset register that not only complies with MFMA requirements but will also be a valuable working tool for maintenance and refurbishment of assets.
- Implement and maintain modern GIS water and sanitation master planning and a fault reporting and repair system that links with the customer billing and service level data.
- Bring higher levels of skills and experience, resulting in better performance, increased functionality in terms of building plan approvals, township establishment and project management.

# Back-Up: World Bank lessons learned during the Mbombela PPP

Case Study for the 10 years of the Mbombela (Nelspruit) Water and Sanitation Concession South Africa

Final Review and Update (2019)

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## 1. What worked:

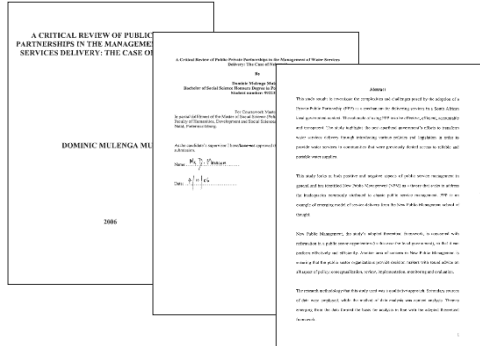
- The concession brought substantial **additional management talent** on the day-to-day water and sanitation operations. This is beyond what the Municipality could have provided.
- **Backlogs** of access to the formal water and sanitation systems have been substantially **reduced** since 1999 - a significant accomplishment, particularly given the high levels of growth in the number of households over the past ten years.
- **Water quality is excellent**, as recognized by DWEA's Blue and Green Drop awards.
- **Employee training** and development programmes are **strong** and employee retention is good.
- Revenue generated of the town of Nelspruit has been critical to extend services to the previously unserved and underserved areas as well as subsidising the provision of services to the poor. The availability of such an **economic hub is imperative for the financial sustainability** of any water services supply authority.
- **Water tariffs** are reasonable and **comparable** with other South African municipalities and national averages

## 2. What did not work:

- **68% of households do not have a 24-hour water supply.** It appears the concessionaire understands how to resolve this issue and could eliminate most of the issues over the next few years
- There has been **no capital investment** by the concessionaire of shareholder funds and only R54 million of borrowed funding for which the concessionaire is responsible for repayment. A primary reason for undertaking the concession was the access to external financing for capital investment. Although there were reasons for changing the investment expectations of the concession in the past, this area should be addressed by the municipality and the concessionaire.
- The **concessionaire has limited its risk and responsibilities through the various renegotiations** of the contract. The terms of the contract have been adjusted due to changing external circumstances (change in concession area; national policy introducing FBW services ...). Although, the concessionaire reduced his responsibility for capital investment, he still receives government grants for operating and capital purposes.
- **Non-revenue water performance was not significantly improved** and collections of billings are far below the levels anticipated by the contract. This is the result of the government policy of 'free basic services', which has been used by many customers as a reason to not pay for any services, and a lack of effort by the concessionaire.
- The **municipality M&E is weak**. Since regulation only occurs through contract management by the Municipality, and not from an external entity, the importance of a fully capacitated concession monitoring office cannot be overemphasized.
- Various **National government agencies** have oversight roles for this concession, but **no enforcement authority**. Consequently, technical support from the national level appears to ebb and flow, depending on the specific people involved in each of the agencies.

3

# Back-Up: Lessons learned during the Mbombela PPP – academic study




1. **Importance of a supportive legal and policy context**
  - New policies permitted private sector participation in service delivery and opened up parastatals to private sector investment.
2. **Tensions will always be there. They have to be managed through engagement**
  - In South Africa, PPPs are considered in some circles to be private sector friendly at the expense of the original goal of redistribution that the ANC adopted in its early days in government. PPPs denote change. But not all people are comfortable with change, especially if it is seen as being threatening to the status quo. Moreover, tensions are heightened because water and sanitation - is an essential delivery priority for the government and constitutes a fundamental right.
3. **Complexity of a PPP should not be underestimated:**
  - An illustration of the complexity of and challenges faced in a PPP is the imperative to balance the profit motive with the constitutional rights of the citizens (Right to access FBW services).

4. **Fear of job losses and stakeholders' engagement:**
  - The traditional concern about PPPs is that they create unemployment because they advocate a reduced work force in their pursuit of efficiency, cost saving and profits.
  - It is important that PPPs are founded based on transparent procedures in which key stakeholders participate unfettered
5. **Local conditions will dictate the pace and scope of PPP implementation:**
  - PPP projects should be cognizant of local conditions because PPP blueprints may not be applicable to the different contexts in which various municipal councils are situated and operate. In the Mbombela concession, the dire poverty that characterizes the area has posed serious challenges to the PPP (incl. high unemployment level; lack of reliable sources of income; unwillingness to pay bills).
  - Private actors have to accept that it will take some time before the people accept that they have to pay for services. Until such a time is reached, it is important to utilize opportunities such as subsidies, entailed in the concept of free basic water services, in setting the rates.

# Case Study: The iLembe concession improved quality of water service provision, after initial struggles



|  | Water and Waste Water Treatment | Private party | Semcorp Siza Water (SWC)     | Public party     | Ilembe District Municipality |
|-----------------------------------------------------------------------------------|---------------------------------|---------------|------------------------------|------------------|------------------------------|
| Timeframe                                                                         | 1999-2029                       | Parent        | SembCorp group, Singapore    | Category / Party | C / ANC                      |
| Type                                                                              | Concession                      | Revenue       | 550M USD                     | Population       | 658k (2016)                  |
| Value                                                                             | R386 M                          | # Employees   | -                            | Informal settle. | %                            |
| Risk sharing                                                                      | -                               | Core services | Utilities; Urban development | Bill payment     | -                            |
| # People                                                                          | 61k (~10% of pop.)              | # of PPPs     |                              | Blue drop        | -                            |
| Financial detail                                                                  | 2.6M/Y lease                    | # PPPs RSA    |                              | Green drop       | -                            |

## Case summary

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Background          | • Water infrastructure in poor condition; water losses exceeding 40%; high rate of non-payment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Procurement         | • A concession for water and waster water treatment for the iLembe District Municipality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Operational history | <ul style="list-style-type: none"> <li>• Change in public partner due to municipal reform; insufficient revenues from low tariffs etc led to private partner 'default' in Y2</li> <li>• To remedy this, 35M R investment in infrastructure; introduction of tiered pre-payment systems; increase in water tariffs</li> <li>• Status as of 2004/05: concession is considered to be viable; service provision is reliable; 97% payment collection rate; negligible consumer debt; water losses reduced to 10%. SWC is covering all its costs and retaining some funds for investment</li> <li>• Municipality considering whether to take over project</li> </ul> |
| Public lesson       | • Ensure sufficient staff capacity for correct M&E of private operator; ensure buy-in of all public stakeholders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Private lesson      | • Create contingency plan in case of municipal merger; agree terms upfront in case of public takeover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Assessment          | • Rocky start of this PPP underscores necessity of proper planning; major benefits unlocked if structured appropriately                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Source: Robbins, G. (2004). A Water Sector Public-Private Partnership Case Study: Illembe District Municipality – Siza Water Company, p. 2

Financial results available at: <http://www.sembcorp.com/en/investor-relations/results-and-reports/financials-at-a-glance>

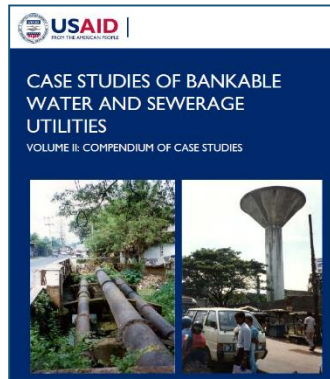
USAID. (2005). Case Studies of Bankable Water and Sewerage Utilities. Volume II: Compendium of Case studies, p. 10.

<http://www.localgovernment.co.za/districts/view/17/iLembe-District-Municipality#management>

# PPPs need strong partnership and involvement of stakeholders, M&E, technical and staff capacity

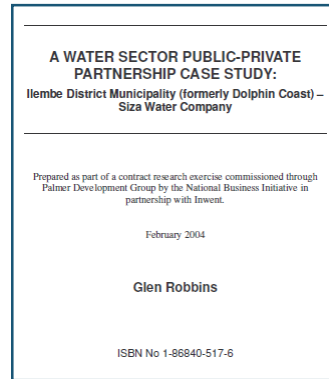
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**USAID – Case Studies of Bankable Water and Sewerage Utilities**



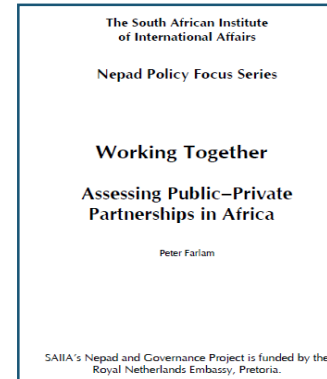
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**A Water Sector Public-Private Partnership Case Study – Glen Robbins**



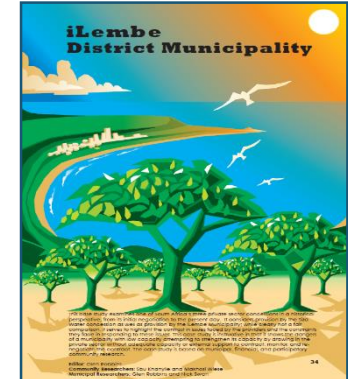
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**The South African Institute of International Affairs - Assessing PPPs in Africa**



4

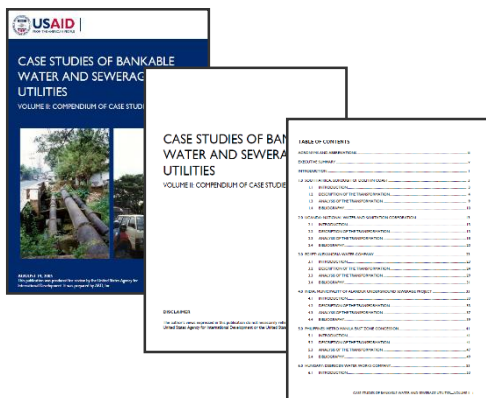
**Water Dialogues – iLembe District Municipality Case Study**



- A** Capacity building of all stakeholders (especially WSAs) is crucial
- B** A strong leadership/partnership structure that is able to deal with crisis situation is important (include a trusted broker)
- C** Involvement of all stakeholders into contract processes and subsequent communication structure is vital for support of the partnership
- D** Institutional and policy certainty/clarity must be given
- E** Key information of PPP is built must be accurate (e.g. population growth, specific concession area, municipal grants, FBW etc.)



# ① Back-Up: USAID lessons learned during the iLembe PPP



## 1. The private operator provided professionalism, technical skills, and knowledge resources that the municipality lacked:

- In spite of a lack of contract monitoring, SWC pursued planned programs focusing on improved operation and maintenance with specific maintenance schedules, unaccounted for water loss, staff training, billing and collections, and a rational investment program.
- SWC has access to technical resources deriving from Saur International and other concession partners when problems arise. This capacity and the actions taken by the concessionaire have led service improving within the concession area and general satisfaction with the level of service, even though tariffs were increased.

Ⓐ

## 2. Flexibility of the contract:

- The contract allowed for essential revisions to be made, in light of changing circumstances. This made it possible to increase tariffs, renegotiate the rental fee, and down-size the investment program to correct for unrealistic growth projections in the initial agreement. The contract allowed rapid decision-making, something that is difficult for municipal government. Renegotiation of the agreement in 2001 was a major factor in making the concession

Ⓑ Ⓔ

successful, as it provided the opportunity for all to assess the situation realistically after SWC had the chance to operate the system for some time.

## 3. Demonstrated commitment to meeting the terms and spirit of the contract:

- Despite problems that arose (i.e., the inability of the municipality to monitor the contract properly, the need to accommodate the free water requirement, and the impact of poor growth rate projections), both the concessionaire and the local government authorities have demonstrated commitment to the concession, even in the face of shifting local government structures. To its credit, the city council recognized the positive achievements made by SWC, the fact that the city government did not have the capacity to manage the system with its own resources, and the substantial amount of time and resources that would be required to select a new service provider. Therefore, the city was willing to pursue renegotiation of the contract through the terms provided in the agreement.

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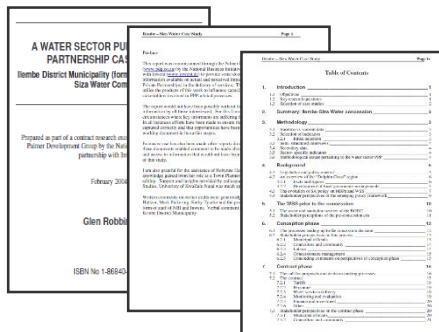
## 4. The operator focused on community consultation and outreach:

- Liaison with the consumer community has taken a variety of forms, including newsletters, flyers, and face-to-face discussions about specific issues. The operator acts on the belief that, if they can keep customers happy by providing professional services with accurate invoicing and prompt answers to questions and complaints, then customers will be satisfied. SWC monitors consumer complaints, generally responding more rapidly than the concession contract requires. SWC is obliged to submit a monthly customer service report that provides details of customer issues, such as new and closed accounts, disconnections, and number and types of complaints.

Ⓒ



# ② Back-Up: A Water Sector PPP - lessons learned in iLembe



## 1. Lessons identified by Municipal officials:

- ⑤ – Institutional and policy certainty is important
- ⑤ – Capacity building for all stakeholders is essential
- ⑤ – Capacity needed to handle crisis periods
- Monitoring and evaluation systems must be built up
- Concession arrangements enable maintenance and upgrading of core infrastructure – municipalities struggle with this as trend is to spend grant income on extension of services
- ⑤ – Policy clarity is required on issues such as free basic water, allocation of grants in concession areas etc

## 2. Lessons identified by the Councillor:

- Concessionaire invests capital and maintenance funds
- ⑤ – WSA capacity building needed for municipality
- ⑤ – Regular meeting platform with all stakeholders needed
- ⑤ – Buy in of labour and community is important
- ⑤ – Correct forecasting is essential

## 3. Lessons identified by the Concession Manager:

- ⑤ – Institutional and policy certainty is important
- ⑤ – Municipalities need capacity building
- Boundaries of concession area need to be very carefully thought through
- ⑤ – Leadership capacity is essential in making a concession work

- Improved regulation is required in terms of how municipalities handle their own investment processes related to WSS so as not to create an imbalance reflected in prices

⑤

- Policy clarity is required

⑤

- The presence of a trusted broker such as MIIU is important

## 4. Lessons identified by Ratepayers:

- ⑤ – Pre-concession stakeholder processes must be more thorough to equip for participation and to deal with crisis periods
- Private concession routes do not mean cheaper services but do bring service quality improvements
- ⑤ – Transparency and involvement in contract processes is important
- Monitoring and evaluation are important and generally not handled well by municipalities
- International companies do not necessarily bring anything more
- ⑤ – Involvement procedures must be put into place

## 5. Lessons identified by Labour:

- ⑤ – Strong leadership needed to deal with crisis periods
- ⑤ – Transparency and involvement in contract processes is important
- At a minimum the rights of existing service employees must be protected in contract form
- National regulation needed on the issue of privatisation
- Involvement of workers in shareholding secures their buy in

## 6. Lessons identified by Municipal Infrastructure Investment Unit (MIIU) – Broker:

- ⑤ – Pre-concession stakeholder processes must be more thorough to equip for participation and to deal with crisis periods
- ⑤ – Information on which concession deals are based must be independently tested

- ⑤ – Institutional and policy certainty is important

## 7. Lessons identified by DWAF (now DWS):

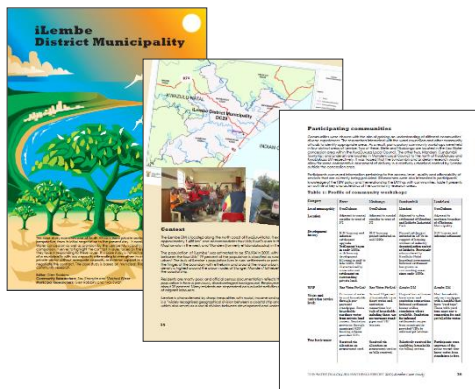
- ⑤ – Ongoing effort is required to secure municipal capacity to ensure management of concessionaire is handled effectively
- ⑤ – Policy direction is needed in more precise terms on free basic services and use of municipal grants

### ③ Back-Up: SALLA – Assessing PPPs in Africa

|                                                                 |                                                                   |          |
|-----------------------------------------------------------------|-------------------------------------------------------------------|----------|
| <p>The South African Institute<br/>of International Affairs</p> |                                                                   |          |
| <p>Nepal Policy Focus Series</p>                                |                                                                   |          |
|                                                                 | <p>Table of Contents</p>                                          |          |
|                                                                 | <p>Executive Summary</p>                                          | <p>i</p> |
|                                                                 | <p>Political Policy-Security Transfer</p>                         |          |
|                                                                 | <p>Case Studies</p>                                               |          |
|                                                                 | <p>Insurgent</p>                                                  |          |
|                                                                 | <p>Case Study 1: 1st Mad Badam Army, 2001</p>                     |          |
|                                                                 | <p>Case Study 2: 20 Insurgent Force</p>                           |          |
|                                                                 | <p>Case Study 3: 1st Prithvi Division in South-Western Region</p> |          |
|                                                                 | <p>Case Study 4: 1st Prithvi Division in the Capital Region</p>   |          |
|                                                                 | <p>Case Study 5: 1st Prithvi Division in the Eastern Region</p>   |          |
|                                                                 | <p>Case Study 6: 1st Prithvi Division in the Western Region</p>   |          |
|                                                                 | <p>Case Study 7: 1st Prithvi Division in the Central Region</p>   |          |
|                                                                 | <p>Case Study 8: 1st Prithvi Division in the Southern Region</p>  |          |
|                                                                 | <p>Case Study 9: 1st Prithvi Division in the Northern Region</p>  |          |
|                                                                 | <p>Case Study 10: 1st Prithvi Division in the Eastern Region</p>  |          |
|                                                                 | <p>Case Study 11: 1st Prithvi Division in the Western Region</p>  |          |
|                                                                 | <p>Case Study 12: 1st Prithvi Division in the Central Region</p>  |          |
|                                                                 | <p>Case Study 13: 1st Prithvi Division in the Southern Region</p> |          |
|                                                                 | <p>Case Study 14: 1st Prithvi Division in the Northern Region</p> |          |
|                                                                 | <p>Case Study 15: 1st Prithvi Division in the Eastern Region</p>  |          |
|                                                                 | <p>Case Study 16: 1st Prithvi Division in the Western Region</p>  |          |
|                                                                 | <p>Case Study 17: 1st Prithvi Division in the Central Region</p>  |          |
|                                                                 | <p>Case Study 18: 1st Prithvi Division in the Southern Region</p> |          |
|                                                                 | <p>Case Study 19: 1st Prithvi Division in the Northern Region</p> |          |
|                                                                 | <p>Case Study 20: 1st Prithvi Division in the Eastern Region</p>  |          |
|                                                                 | <p>Case Study 21: 1st Prithvi Division in the Western Region</p>  |          |
|                                                                 | <p>Case Study 22: 1st Prithvi Division in the Central Region</p>  |          |
|                                                                 | <p>Case Study 23: 1st Prithvi Division in the Southern Region</p> |          |
|                                                                 | <p>Case Study 24: 1st Prithvi Division in the Northern Region</p> |          |
|                                                                 | <p>Case Study 25: 1st Prithvi Division in the Eastern Region</p>  |          |
|                                                                 | <p>Case Study 26: 1st Prithvi Division in the Western Region</p>  |          |
|                                                                 | <p>Case Study 27: 1st Prithvi Division in the Central Region</p>  |          |
|                                                                 | <p>Case Study 28: 1st Prithvi Division in the Southern Region</p> |          |
|                                                                 | <p>Case Study 29: 1st Prithvi Division in the Northern Region</p> |          |
|                                                                 | <p>Case Study 30: 1st Prithvi Division in the Eastern Region</p>  |          |
|                                                                 | <p>Case Study 31: 1st Prithvi Division in the Western Region</p>  |          |
|                                                                 | <p>Case Study 32: 1st Prithvi Division in the Central Region</p>  |          |
|                                                                 | <p>Case Study 33: 1st Prithvi Division in the Southern Region</p> |          |
|                                                                 | <p>Case Study 34: 1st Prithvi Division in the Northern Region</p> |          |

1. **A** There is a need for water and sanitation authority capacity building at the municipal level to ensure better performance.
2. **E** More accurate information is required in the feasibility studies which form the basis of the concession, particularly with regard to data used in projections.
3. **D** Policy clarity is needed on issues such as free water and allocation of grants in concession areas, and contracts should specify what process should be followed in the event such terms change.
4. Greater transparency on the part of the municipality and the private operator would lead to a greater level of trust and acceptance amongst consumers.
5. Small water concessions are less commercially viable than larger ones as the private operator is less able to take advantage of economies of scale.
6. Given the difficulties with the concession, a management contract with an emphasis on training up local staff to assume management of the water utility might have achieved better results with fewer price hikes to consumers.
7. **E** Some of SAUR's initial investment of R7 million<sup>70</sup> was used to pay for the black economic empowerment partners, which meant the concession required additional funds in the form of a loan from the DBSA for maintenance and upgrading of services.

# ④ Back-Up: Findings on the iLembe Concession with Siza




1. Progress in extension of services were made by the municipality but performance stays below average in some aspects
  - In 2007: only 54% of household had access to water and 79% had access to sanitation. Provincial averages: 74% and 82% respectively
  - Continual interruptions of supply across all areas
2. Siza Water is outperforming iLembe but also operates in a relatively small, wealthy area.
  - Municipal officials felt that if iLembe had access to the revenue streams from the concession are, the municipality could transfer it to less developed areas in the district.
3. Shared learning was hindered because partners were ambivalent on the benefits of the concession to the municipality
  - This although the concession was intended to create a teaching/learning environment
4. Siza Water fulfils its requirements, however, no adequate monitoring is performed by iLembe
  - This although Siza pays iLembe R1 m to monitor its technical, legal and

financial compliance with contract conditions

5. Significant backlogs remain across iLembe DM; level of provision is low. Siza water has few backlogs but also began with fewer backlogs and is operating in a relatively wealthy, urbanised area.
6. Siza Water's operations seem financially sound and, after having to make significant infrastructure investments, reported "meaningful profit" starting in 2007. iLembe's financial management of water provision is improving, but it is still running at a loss each year.
  - The user debt is higher than iLembe's yearly revenue
  - Revenue shortages stem from water loss and poor collection from users
7. iLembe focused on extending infrastructure and left few funds for operation and maintenance. Siza Water is in a position to invest in core infrastructure and maintenance.
  - Policies regarding household connections are fairly consistent across the DM, whereas policies regarding access to FBW via standpipes varied, depending on the provider.
  - iLembe DM does not use prepaid meters
9. Neither provider is directly accountable to users in a clear manner and both have inadequate communication with residents.
  - Both providers have no clear system of involving users in any decision-making process with regard to water sanitation supply.

# Case Study: JOWAM shows how to leverage private sector know-how through a management contract



|  | Corporatization of Johannesburg Water | Private party | Johannesburg Water Management (Pty) Ltd | Public party     | Johannesburg Metro M |
|-----------------------------------------------------------------------------------|---------------------------------------|---------------|-----------------------------------------|------------------|----------------------|
| Timeframe                                                                         | 2001-2006                             | Parent        | Suez Environment                        | Category / Party | A / ANC              |
| Type                                                                              | Management Contract                   | Revenue       | 417 M Euros (2014)                      | Population       | 4950k (2016)         |
| Value                                                                             | R67 M                                 | # Employees   | 13 full-time managers                   | Informal settle. | %                    |
| Risk sharing                                                                      | -                                     | Core services | WT & WWT services                       | Bill payment     | -                    |
| # People                                                                          | 2.8 M                                 | # of PPPs     | -                                       | Blue drop        | -                    |
| Financial detail                                                                  | JW total turnover: R11 B              | # PPPs RSA    | -                                       | Green drop       | -                    |

## Case summary

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Background          | <ul style="list-style-type: none"> <li>Lack of capacity to handle critical technical, billing and user contact functions; lack of data for management and monitoring; very high unaccounted-for-water, estimated at 43%; high non-payment by users; high levels of environmental non-compliance; and poor customer interface and customer relations management; in 2001 bankrupt with a deficit of R400 M</li> </ul> |
| Procurement         | <ul style="list-style-type: none"> <li>A management contract for the corporatization of the water and sanitation services of Johannesburg Metro Municipality</li> </ul>                                                                                                                                                                                                                                              |
| Operational history | <ul style="list-style-type: none"> <li>JW &amp; JOWAM put together a financial turnaround strategy which restored financial viability in 2006 (+R24M). The turnaround strategy included that the CoJ provided JW with an interest carrying grant (a form of subsidy) of R910 M over the period 2002/03 to 2005/6.</li> <li>NRW reduced to 36%</li> </ul>                                                             |
| Public lesson       | <ul style="list-style-type: none"> <li>Performance-based contract incl. incentive structure for remuneration; single, clear objective for the PPP (no multiple, catchall targets)</li> </ul>                                                                                                                                                                                                                         |
| Private lesson      | <ul style="list-style-type: none"> <li>Clear &amp; thought-through allocation of responsibilities; agree terms upfront in case of public takeover</li> </ul>                                                                                                                                                                                                                                                         |
| Assessment          | <ul style="list-style-type: none"> <li>The JOWAM management contract provided a critical boost to technical and leadership capacity necessary to the new JW</li> </ul>                                                                                                                                                                                                                                               |

# PPPs need clear objectives & responsibilities, high level of political commitment, strong leadership

1

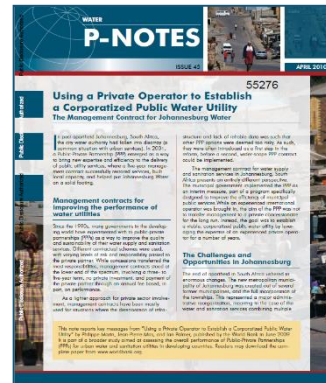
## The Water Dialogues Synthesis Report 2009 - Johannesburg Case Study



- Overview of the PPP from beginning of the management contract 2001 to 2006
- Focus on performance indicators; development of the PPP & challenges surpassed

2

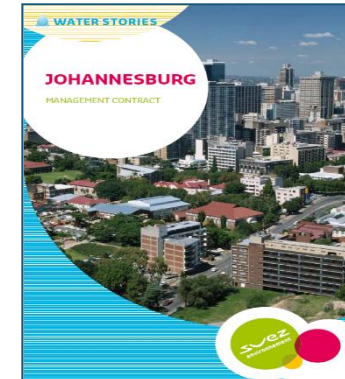
## Water P-Notes – Using a Private Operator to Establish a Corporatized Public Water Utility



- Overview of management contract
- Focus on how to replicate the corporatization of a water utility by a private operator to other cases

3

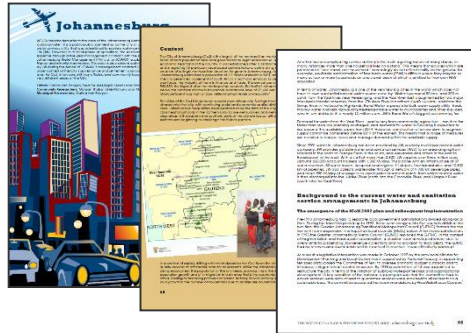
## Suez environment – Water Stories: Johannesburg Management Contract



- Overview of the PPP from the perspective of the private actor – Suez environment
- Focuses on the improvements achieved during the partnership
- Overview of contract set-up

- A** High level of political commitment – strong ownership of all partners
- B** Single, clear objective for the PPP (no multiple, catchall targets)
- C** Trust in partners & presence of a reputable, independent auditor
- D** Strong leadership overseeing processes
- E** Clear & thought-through allocation of responsibilities
- F** Performance-based contract incl. incentive structure for remuneration

# ① Back-Up: Water Dialogues: lessons learned during JOWAM



5. Some recognition of improved services reflected in complaint responses is eclipsed by concerns at inadequate communication and consultation, as well as a lack of engagement and active participation in determining policy and implementation options.
6. A pragmatic approach to the implementation of institutional model seems to have been an important factor that allows for better fit with the context in which WSS has to be provided, and which changes constantly.
7. The governance model seems to be crucial in influencing performance of WSS for poor households

1. Key factors ensuring the success of the JW restructuring process included the introduction of the JOWAM management contract, the commitment by the CoJ to its shareholder role, and the responsibility taken by the CMU of the CoJ, supported by the JW Board, in guiding JW's (and therefore JOWAM's) contract implementation and interaction with CoJ governance structures.
2. The commitment to and the active oversight of JOWAM's contractual obligations to JW resulted in significant gains to JW, CoJ and WSS users, through improved service systems, managed with enhanced efficiency and better use of resources. However, contractual omissions around participatory processes and excessive attention on technical dimensions of the contract contributed to performance gaps.
3. The positive role of leadership and a widely-shared commitment to pragmatism in decision-making, were seen to be of relevance in allowing JW to consolidate during the JOWAM period.
4. Service delivery choices, informed by CoJ policy, while making some progress against backlogs, introducing a measure of service innovation (Level 2 service), and improving efficiencies have, together with the pressures of growing urbanisation and density, generated ongoing service challenges requiring attention.



## ② Back-Up: P-Notes lessons learned during JOWAM



Several aspects stand out in the design and implementation of this PPP:

1. A high level of political commitment to the PPP from the start. The municipal government was strongly committed to turning around W&S services. There was a strong ownership of the choice made to bring an experienced private operator to help for a few years under a management contract—a decision made entirely by the elected municipal government, without donors' conditionality for accessing external funding.
2. The PPP had a single clear objective—to establish a viable, corporatized public water utility with well-defined performance targets. It was not designed as a catchall with multiple unrealistic targets.
3. The municipality was able to adopt a flexible approach to measuring the year-by-year impact of the private operator. Where a reliable baseline is lacking, assessment of an operator's performance becomes difficult, and this often leads to distrust and conflict. This issue was approached with notable pragmatism in Johannesburg. The contract's first year was dedicated to establishing a reliable baseline and performance monitoring system so that progress could be reliably measured, against increasingly stringent targets, in later years. This solution required both sufficient trust between the partners and the presence of a reputable independent auditor.
4. Both partners were committed to success and worked well together. The private operator proved ready to devote substantial resources to making the contract work (probably in the hope of developing future contracts). Meanwhile, the city authorities didn't interfere in the utility's day-to-day management. They also appointed as JOWAM's counterparts competent executives who supported corporatization reform. The parties built a relationship of trust, essential for dealing with new developments during the contract.
5. There was a strong focus on developing human resources. The private operator sent a large number of expatriates during the first year of the contract to ensure a rapid transfer of knowhow, and a competent management team from the city was gradually trained and installed in positions of responsibility. The private operator also built ownership of the reform among the utility's employees so that they would actively support its efforts to improve performance. Much of the progress achieved was because the utility's employees were treated as assets and partners in the ongoing reform.
6. Other factors enhanced success: while the municipal W&S departments were not functioning well at the start of the management contract, neither were they dysfunctional, as was often the case with management contracts implemented in other (and often less developed) countries. In addition, the infrastructure was generally in satisfactory condition. This allowed the private operator to focus on improving the management of staff and assets, and develop a new corporate vision of efficiency and customer orientation.

# 3 Back-Up: Lessons learned during the Johannesburg PPP – academic study



## 1. **E** Clear allocation of responsibilities:

- Johannesburg Water was accountable for the delivery of water and wastewater services. The utility's board of directors and its managing director were appointed by and represented the municipal authorities
- The day-to-day management of the water and sanitation services was delegated to the private operator JOWAM, making it responsible for the utility's overall performance
- The municipality remained responsible for financing investments, for setting tariff levels, and for funding any potential shortfall due to excessive operating costs or insufficient revenues.

## 2. **F** Contractual arrangements encompassing incentive structures:

- The management contract was performance-based and thus the private operator's payment was linked to its performance. The structure was:
- A fixed management fee
- A "Part A" variable incentive payment linked to contractual targets for improvements in performance (enhanced customer service, compliance with quality standards, better facilities maintenance, annual capital investment

programme, development of human resources)

- A "Part B" variable incentive payment linked to the X factor in the financial bid, representing the additional revenue collected during the life of the contract.
- This is also partly the reason why JOWAM had more than 90 % of compliance with contractual targets every year, with clear improvements in customer service, environmental compliance and cost efficiency.

## 3. Partial responsibility transfers should be thought-through:

- JOWAM had little control over commercial losses, because the responsibility for meter reading, billing and collection were only partially transferred to
- E** Johannesburg Water from the municipal authorities. In the last two years of the contract, as the City transferred responsibility, JOWAM was able to set up efforts to reduce commercial losses.



# Agenda

- Definitions of PPPs
- Regulations of Water PPPs in South Africa
- Past and current water PPPs in South Africa: Overview and Case Studies

## • **Barriers and Solutions**

- Appendix

# What are other pitfalls and ways of addressing them?

UPDATED AFTER ROUNDTABLE

|                  | Main pitfalls                                                          | Mitigation Strategies |
|------------------|------------------------------------------------------------------------|-----------------------|
| Setting up a PPP | Political will                                                         |                       |
|                  | Cumbersome PPP approval process (e.g. article 78)                      |                       |
|                  | Lack of investor knowledge about SA water landscape                    |                       |
|                  | Low internal PPP capacity and high upfront cost for advisers           |                       |
|                  | Opposition from unions (job losses)                                    |                       |
|                  | Opposition from public (price increases and cut-offs)                  |                       |
|                  | Lack of accurate baseline data                                         |                       |
|                  | Lack of customer base with ability to pay full cost of water           |                       |
| Operating a PPP  | Non-payment of bills                                                   |                       |
|                  | Irregular PPP approval process                                         |                       |
|                  | Fundamental assumptions about service area change                      |                       |
|                  | Unclear KPIs for service delivery <i>and</i> service extension         |                       |
|                  | Insufficient stakeholder/civil society involvement (public outreach)   |                       |
|                  | Lack of continuous M&E (contract management competence)                |                       |
|                  | Uneven risk, investment and profit split (cost and price fluctuations) |                       |
|                  | Insufficient regulatory framework (e.g. water pricing)                 |                       |

# Agenda

- Definitions of PPPs
  - Regulations of Water PPPs in South Africa
  - Past and current water PPPs in South Africa: Overview and Case Studies
  - Barriers and Solutions
- **Appendix**

# Back-Up: Ruiters comparison of PPP models in terms of 12 parameters for water services infrastructure delivery

| #  | Model parameter              | State model                                                                                       | Hybrid model                                                                                     | Private sector model                                                                                  |
|----|------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 1  | Technical/<br>project risk   | 100% carried by state                                                                             | Shared risk (10-90%)                                                                             | 100% carried by private sector                                                                        |
| 2  | Financial risk               | State funds everything                                                                            | Shared risk (10-90%)                                                                             | Private sector fund everything                                                                        |
| 3  | Contractual risk             | Full risk                                                                                         | Shared risk                                                                                      | Full risk                                                                                             |
| 4  | Skill/knowledge<br>transfer  | No transfer from private sector to protect competitive edge                                       | Easy to enforce transfer from private sector                                                     | Private sector retains skills to protect competitive advantage                                        |
| 5  | Role of state<br>institution | Local government implements                                                                       | Local government implements with support of private sector institutions – regulator required     | Private sector implements – regulator required                                                        |
| 6  | Affordability and<br>revenue | Heavy reliance on gov't grants; limited revenue flows; low infrastructure investment              | Revenue flows prioritized due to business incentive; investment based on return with subsidy     | Revenue flows are of highest priority; investment according to return on equity                       |
| 7  | Value for money              | High risk of financing operational inefficiencies                                                 | Operational efficiency and cost optimization prioritized                                         | Operational efficiency and cost optimization of highest priority; maximize shareholder return         |
| 8  | Infrastructure<br>ownership  | State owns                                                                                        | State owns                                                                                       | State owns, private sector can ultimately take over                                                   |
| 9  | Socio-political<br>issues    | Local participation required; government can subsidize water at own discretion                    | Local participation required; government can subsidize as per contract                           | Social-political concerns present business risk and are therefore highly prioritized                  |
| 10 | Funds following<br>functions | Funds should follow function – funds for local water infrastructure go directly to municipalities | Funds for capital contribution or subsidy flow through the municipality                          | Private sector recovers costs from users directly, or municipality does it on private sector's behalf |
| 11 | Tech and<br>innovation       | Limited chance that state benefits from new technology and creative solutions                     | Shared creativity and technological innovations between private and public sector to max. profit | Creative solutions are of highest priority as tools for achievement of operational efficiency         |
| 12 | Transparency                 | Services procured through open tender. Award process can be driven by extraneous factors          | Open tender system, private sector must demonstrate it has capabilities to deliver               | Open tender system. Performance requirements are high in order to satisfy shareholders                |

Note: Applied in a study in the Gauteng and Limpopo provinces

Source: Cornelius Ruiters "Public-private partnership conceptual framework and models for the funding and financing of water services infrastructure in municipalities from selected provinces in South Africa" *Water SA* April 2016