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# Tapping into Efficiency:

## Private Sector Participation in Water

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South Africa is facing an escalating crisis in its water sector, characterised by deteriorating infrastructure, operational inefficiencies, and a failure to expand access to quality water for a significant portion of its population. This situation necessitates a critical evaluation of alternative models for water service provision. The Siza Water (KwaZulu-Natal) and Silulumanzi (Mpumalanga) concessions reveal that private operators can achieve high levels of operational efficiency and service quality, and that private-sector participation (PSP) is a viable option if designed correctly.

*This note summarises a longer research paper available here:* ***UNU-Wider case studies***

## POLICY PROBLEM

**Nearly half of South Africa's water systems are in a state of distress.** According to the Department of Water and Sanitation (DWS), 47%[1] of potable water systems are officially classified as being in a "poor or in a critical state," a figure that rises to an 64% for wastewater systems[2].

**Almost half of all treated water in South Africa is lost before it can generate revenue.** This inefficiency puts the financial viability of municipal water services at risk. At a national level, water losses currently stand at 40.7%, while non-revenue water (NRW), in other words, water that is produced but never billed due to leaks, theft, or inaccurate metering, has reached 46.8%.[3]

[1] Department of Water and Sanitation (2023). 'Blue Drop Report 2023: National'. Pretoria: DWS. Available at: https://ws.dws.gov.za/iris/releases/BDN_2023_Report.pdf

[2] Department of Water and Sanitation (2022). 'Green Drop Report 2022: National'. Pretoria: DWS. Available at: https://ws.dws.gov.za/IRIS/releases/GD22%20Report_NATIONAL_FINAL_16May22_MN%20web.pdf

[3] Department of Water and Sanitation (2023e). '2023 No Drop Report'. Pretoria: DWS. Available at: https://ws.dws.gov.za/iris/releases/ND_2023_Report.pdf

**This dynamic creates a self-perpetuating cycle of decline.** The lost revenue is precisely what municipalities need to fund the capital expenditure required to repair and upgrade ageing infrastructure that is a primary cause of the losses. Consequently, operational inefficiency contributes to financial losses, which in turn prevents the resolution of the operational failures. This cycle has proved difficult to break with public funds and grants alone, creating a compelling case for models that can inject both private capital and operational discipline into the system.

**The human cost of this systemic failure is severe and highlights deep-seated inequalities.** While 82.7% of households in South Africa have access to piped water, this figure masks regional disparities that leave the most vulnerable communities behind.[4] In provinces such as Limpopo and the Eastern Cape, household access to piped water is just 58.5% and 67%, respectively, and 3.4% of all South African households, representing millions of people, still depend on unsafe water sources such as rivers, streams, and dams.[5]

## EFFICIENCY GAINS

**Two long-standing water concessions, Siza Water in iLembe District Municipality and Silulumanzi in Mbombela, suggest that correctly-structured private sector partnerships can improve efficiency.** These case studies demonstrate that when structured correctly, private operators can achieve a level of technical and commercial excellence that far exceeds prevailing public-sector benchmarks.

**The two concessions dramatically reduced water losses**. This metric is a direct indicator of operational control, infrastructure maintenance, and effective management. The performance of Siza Water is particularly noteworthy; upon taking over the concession in 1999, it inherited a system with water losses of 33% and has reduced these losses to a range of 8-15%. Similarly, the Silulumanzi concession maintains water losses between 15% and 20%. These figures stand in stark contrast to the national average of 40.7%.[6]

**Water losses are lower at the concessions**

| Provider | Water Loss rate |
|---|---|
| **National Average (Public)** | 40.7% |
| **Silulumanzi Concession (PSP)** | 15-20% |
| **Siza Water Concession (PSP)** | 8-15% |

*Source: Author's compilation*

**This illustrates a significant gap in operational capability between the private concessions and the typical public providers.** By keeping water within the system, these operators not only conserve a scarce resource but also fundamentally improve the

[4] Stats SA (2024). 'The State of Basic Service Delivery in South Africa: Analysis of the Census 2022 Data'. Pretoria: Stats SA. Available at: www.statssa.gov.za/publications/Report-03-01-83/Report-03-01-832022.pdf

[5] Stats SA (2024). 'The State of Basic Service Delivery in South Africa: Analysis of the Census 2022 Data'. Pretoria: Stats SA. Available at: www.statssa.gov.za/publications/Report-03-01-83/Report-03-01-832022.pdf

[6] Department of Water and Sanitation (2023e). '2023 No Drop Report'. Pretoria: DWS. Available at: https://ws.dws.gov.za/iris/releases/ND_2023_Report.pdf

economic model of water provision. This demonstrates a core competency that many municipalities lack and serves as a powerful argument for the technical benefits of the PSP model.

## ACHIEVING EXCELLENCE IN WATER QUALITY

**The concessions' performance is not limited to efficiency; it extends to achieving the highest standards of water quality.** Both concessions have performed well in terms of the Department of Water and Sanitation's Blue Drop (potable water) and Green Drop (wastewater) certification programs. These certifications are marks of national excellence, awarded only to systems that meet stringent quality criteria.

**Nationally, only 22 of the 850 audited wastewater systems received Green Drop status, which is a mere 2.5% of the systems audited in the most recent audit (2021).**[7] Only three of those systems were in KwaZulu-Natal, two of them managed by Siza Water. None of the 22 that received Green Drop certification are situated in Mpumalanga, but all of the systems managed by Silulumanzi were rated as "good" and had received Green Drop certification in the past.

**Nationally, only 26 of the 958 audited potable water systems received Blue Drop status, which is only 2.7% of the systems audited in 2023.**[8] Of the 26 Blue Drop-certified systems across South Africa, four are situated in Mpumalanga, and all four are managed by Silulumanzi. Three of the 26 were situated in KwaZulu-Natal, and the system that Siza Water manages was one of these. Indeed, Siza Water's Dolphin Coast system has established itself as a national leader, achieving Blue Drop status in every audit conducted since 2011.

**This consistent, externally validated record of high performance in both potable water and wastewater treatment demonstrates a commitment to quality and technical expertise that serves as a benchmark for the entire sector.**

## ENSURING FINANCIAL SUSTAINABILITY

**The concessions have also maintained high collection rates.** South African Water Works (SAWW), the holding company of both Siza Water and Silulumanzi, maintains a collection rate of between 95% and 98%. These figures are significantly higher than those of their municipal counterparts: the iLembe District Municipality's overall collection rate for

[7] Department of Water and Sanitation (2022). 'Green Drop Report 2022: National'. Pretoria: DWS. Available at: **https://ws.dws.gov.za/IRIS/releases/GD22%20Report_NATIONAL_FINAL_16May22_MN%20web.pdf**

[8] Department of Water and Sanitation (2023). 'Blue Drop Report 2023: National'. Pretoria: DWS. Available at: **https://ws.dws.gov.za/iris/releases/BDN_2023_Report.pdf**

services is between 40% and 50%[9], and in some parts of Mbombela, the municipality collects on only 25% of billed water services.[10]

**This robust revenue stream ensures financial sustainability.** Siza Water has been consistently profitable since at least 2010, while Silulumanzi reached break-even around 2004-05 and has since become profitable. Over the life of its concession, Siza Water has made capital investments of approximately R 500 million in upgrading reservoirs, sewer pump stations, and treatment works.

**The ability to fund capital projects from its own balance sheet, driven by operational and commercial success, allows for ongoing improvement and maintenance of assets.** Financially constrained municipalities often cannot perform this critical function. This demonstrates that the commercial nature of the PSP model, when properly regulated, can generate infrastructure investment.

## THE COMMERCIAL BOUNDARY

**A critical limitation of the private concession model is the challenge of expanding basic services to low-income and underserved communities.** The case studies reveal that private concessions can be structurally ill-suited to address the socio-economic challenge of expanding basic services to low-income and underserved communities.

**The commercial logic that drives efficiency and profitability also presents limitations.** Large-scale investment is not justifiable without public subsidies and finance. This finding provides a crucial counter-narrative, highlighting that PSP is a tool for optimisation, but not necessarily for expansion without public sector support.

**Responsibility for expansion of infrastructure and connecting indigent communities remains firmly with the municipalities.** Government funding, such as through the Municipal Infrastructure Grant (MIG), remains key to financing expansion projects, while the private operator focuses on managing and maintaining the existing, commercially viable network.

**The rationale for concessionaires is commercial.** Extending the network to areas with low affordability and a culture of non-payment could pose a risk to investors such as pension funds and would necessitate negotiated concession agreements to secure public funding for such an expansion.

**The introduction of a private operator does not eliminate the state's responsibility for ensuring universal access; rather, it redefines it**. The state's role shifts from being a direct service operator to becoming a contract regulator and, crucially, the funder of last resort for social equity. The failure to expand access in these cases is, therefore, not a

[9] iLembe District Municipality (2025). 'Annual Report for iLembe District Municipality, 1 July 2023 – 30 June 2024'. KwaDukuza: iLembe District Municipality. Available at: https://ilembe.gov.za/download/ilembe-dm-2023-24-annual report/?wpdmdl=13151&refresh=67ce05b26a06a1741555122&ind=1738664291824&filename =ILEMBE%20DM%202023.24%20%20ANNUAL%20REPORT.pdf

[10] Graham, N., B. van Niekerk, and K. Nazreen (2023). 'Towards a Systematic Review of the Water Services Authority Model'. WRC Report 3072/1/23. Pretoria: WRC. Available at: **www.wrc.org.za/wp-content/uploads/mdocs/30721.pdf**

failure of the private operator, which is fulfilling its commercial mandate, but rather a reflection of the model's inherent limits.

**For PSP to contribute to equitable outcomes, the public partner must be prepared to - use public funds actively and effectively to bridge the gap between the need for the project to be commercially viable and the need to progressively realise its citizens' constitutional right to water.** This understanding is fundamental to designing future policies that can leverage private efficiency without sacrificing public service goals.

## AFFORDABILITY MYTH & GOVERNANCE

**Long-term success and public value of water concessions are critically dependent on two factors:** the capacity of the public sector to perform oversight, and the design of a tariff structure that is both cost-reflective and affordable. The case studies reveal that public concerns about affordability are overstated, and failures in municipal governance and oversight pose a significant and ongoing threat to the viability and fairness of these partnerships.

**A prominent argument against PSP in essential services is the claim that private, profit-driven operators will lead to unaffordable tariffs for consumers. However, this is not necessarily borne out by the evidence.** The two case studies show that the operational efficiencies achieved by these operators, particularly the reduction of water losses and high revenue collection rates, create sufficient financial headroom to allow for both profitability and competitive pricing.

**A comparison of tariffs provides clear evidence that the two concessions are, in fact, more competitive than their immediate public counterparts.** In the iLembe District, Siza Water's tariffs for most consumption bands are, in fact, lower than the tariffs charged by the municipality in adjacent areas outside the concession. Similarly, the tariff structure implemented by Silulumanzi in Mbombela is broadly more affordable than that of the City of Mbombela's public water service.

**A lack of municipal capacity poses a governance risk, especially in relation to managing and overseeing the concession contracts.** While private operators have demonstrated high levels of competence, a critical risk identified in both case studies is the lack of corresponding capacity within their municipal partners to effectively manage and oversee the concession contracts. This asymmetry in capability represents the weakest link in the partnership and poses a long-term threat to public value.

**Both concessions have been renegotiated over their lifespans, often in ways that shifted financial risk from the private operator back to the public sector.** This reveals that the greatest risk in a PSP can often be the "public" partner. Without a capable and proactive public-sector client, the public risks negotiating unfavourable terms, failing to enforce performance standards, and being unprepared for contract conclusion. Therefore, investing in municipal capacity is important for the success of PSP arrangements.

# RECOMMENDATIONS: A DIFFERENTIATED APPROACH

**The case studies suggest that South Africa should consider a differentiated strategy for water service delivery.** Private-sector participation offers operational efficiency and infrastructure maintenance, but it is not a universal solution for the sector's equity challenges. The path forward lies in a hybrid approach that strategically leverages private-sector expertise for commercially viable operations while reinforcing public investment and responsibility for ensuring universal access. The following recommendations outline a framework for achieving this balance:

**1. Develop Hybrid Models for Equity and Efficiency**

The core strategic imperative is to design models that explicitly blend public and private roles and financing to achieve both efficiency and equity.

- **Blended Finance:** Future concessions should be structured to combine private capital with public grants, such as the Municipal Infrastructure Grant (MIG), to specifically fund the expansion of services into underserved, low-income areas.

- **Mandated Cross-Subsidisation:** Contracts must be refined to require that a portion of profits, generated from commercially viable areas, be allocated to subsidise connections and services for indigent households. This can be achieved through carefully designed tariff structures and profit-sharing mechanisms, such as those that are in place for the Siza Water concession.

- **Collaboration:** Foster active collaboration between private concessionaires and the newly established National Water Resource Infrastructure Agency to align private operational capabilities with national infrastructure expansion goals.

**2. Strengthen Municipal Oversight**

The critical governance gap must be closed by investing in the capacity of municipalities to act as effective contract managers and regulators.

- **Capacity-Building:** Municipalities must invest in dedicated contract-monitoring units staffed with technical, financial, and legal expertise. National agencies, such as the Water Partnership Office, should provide direct technical support to build this capacity.

- **Enhanced Transparency:** Mandate full financial and operational performance transparency from all water service providers, including private operators. This would subject them to the same level of public scrutiny as public entities and empower councils and citizens to contribute to oversight. The forthcoming Water Services Amendment Bill provides a legislative vehicle to enforce this.

**3. Refine Risk Allocation and Tariff Policies**

Contracts must become smarter and more dynamic to better align private incentives with public goals and reduce the need for costly renegotiations.

- **Dynamic Tariff Formulas:** Link tariff adjustments to the achievement of measurable performance outcomes, such as reductions in non-revenue water or infrastructure upgrades, rather than basing them solely on input costs.

- **Risk Mitigation Clauses:** Build clauses into concession agreements that proactively address the financial and operational risks associated with expanding services into low-income areas, creating clear and predictable mechanisms for public co-funding.

**4. Leverage PSPs for Specific Value Chain Segments**

A more surgical approach to PSP should be adopted, using it as a targeted tool rather than a blanket solution.

- **Targeted Contracts:** Rather than granting full territorial concessions, municipalities should consider outsourcing specific high-efficiency segments of the water value chain, such as the management of wastewater treatment plants or leak-reduction programs, where private expertise can deliver the most value.

- **Ring-fenced Public Utilities:** For distribution in underserved areas where commercial viability is low, municipalities should adopt improved public models, such as financially ring-fenced business units or corporatised municipal entities. These entities could then focus on improving revenue collection while potentially outsourcing bulk water management to private providers.

**5. Ensure Readiness for Post-Concession Transitions**

Municipalities must plan for the potential end of concessions to ensure a seamless transition and protect public assets in the event that a concession comes to an end.

- **Mandatory Exit Strategies:** Require municipalities to develop detailed and fully costed operational and asset takeover plans well in advance of a concession's expiry date, regardless of whether a renewal is anticipated.

- **Knowledge Transfer:** Concession contracts must include mandatory provisions requiring the private operator to train municipal staff throughout the contract period, ensuring a smooth transfer of skills and institutional knowledge upon conclusion.

Ultimately, the evidence suggests that private concessions provide valuable efficiencies and a proven means of delivering high-quality, reliable water services. However, they should be deployed to complement, rather than replace, public investment. And they cannot abrogate the state's fundamental responsibility for expanding equitable access to water for all citizens. A balanced, hybrid, and well-regulated approach is essential to addressing South Africa's complex and urgent water challenges.

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