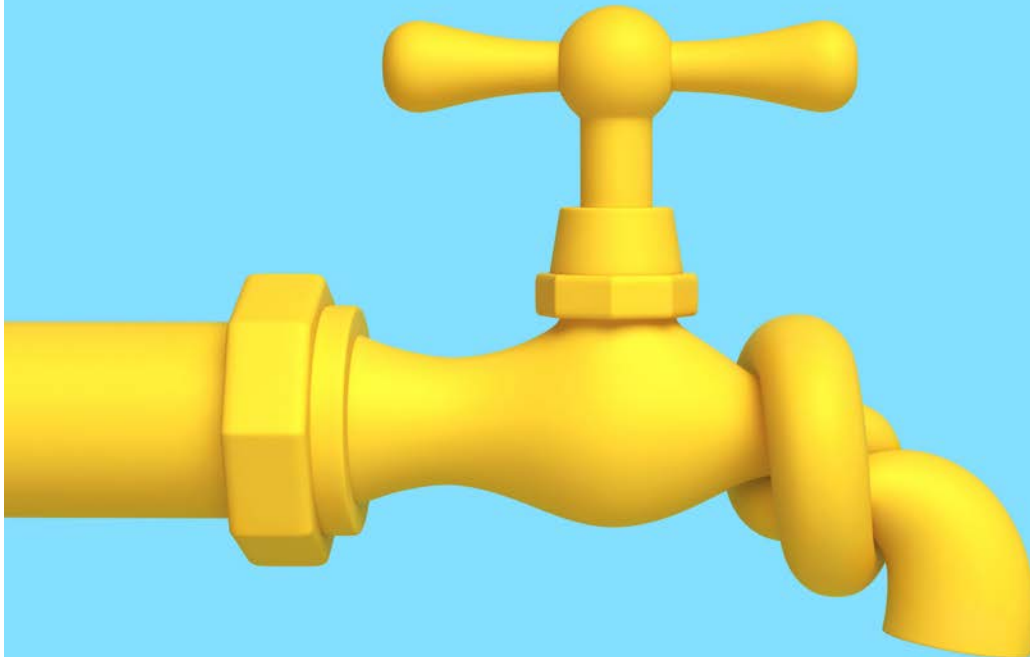


WATER REVENUE

Symposium highlights the complexities of the water payment conundrum

Water revenue models in many of our municipalities are broken. The experiences of Durban and Cape Town, while very different, help us understand why... and point to possible fixes. Matthew Hattingh reports.



Almost Tuscan, a tower looms above double doors, windows framed by tall columns, filling a wall from floor to ceiling. Gables break the lines on a tiled roof, with eaves kicking up at their ends. Is that a bit of Bali sneaking into the design mix?

They're a familiar sight on the fringes of our cities and towns, on hillsides in the former homelands: big flashy houses, often worth millions and sometimes built beside modest, even crude dwellings. Simon Scruton, deputy head of the eThekweni metro's water and sanitation unit, calls them "Mzinyathi mansions" – a reference to an area inland of Inanda, north-west of central Durban, where the countryside is fast giving way to the city.

Understanding why funds for the delivery of services in eThekweni are so stretched might start with these grandiose homes. Indeed, their location in places like Mzinyathi go to the heart of a multibillion-rand problem facing most municipalities in South Africa: how do we get the well-off to make a fair contribution to the cost of providing common services? Scruton was speaking at a 12 November webinar which sought to better understand why many of our countrymen (excluding the poor) don't pay for water – and what might be done to change this.

The webinar was hosted by the University of KwaZulu-Natal's

Water, Sanitation and Hygiene (WASH) Research & Development Centre. Jay Bhagwan, Water Research Commission (WRC) senior research manager for water use and waste management, welcomed guests with some context. He said failure to pay for services made 80% of the country's municipalities "technically bankrupt" and he traced this back to the mass rollout of free basic services, notably water, in the noughties.

Extending basic services to people neglected in the apartheid era was vital, but some who could afford to pay for water believed they needn't. "The horses have run away from the cart," said Bhagwan. In eThekweni revenue from the sale of water fell short of the cost of providing it. Unchecked, he warned the under-recovery risked "catastrophe". He added that the WRC had initiated several studies into poor payment, that also sought to understand how poor governance and lack of leadership made matters worse and looked at water theft and vandalism of infrastructure.

The Mzinyathi Mansions were built on communally held, Ingonyama Trust or traditional authority land, which represents 43% of the eThekweni municipal area. eThekweni, established in 2000, expanded the Durban Metropolitan Area by 68% to include satellite towns, farming land, peri-urban and rural homesteads. This land falls under the custodianship of the King and traditional councils. But the municipality had to provide services, the nub of the problem.

To bill for water, the municipality needs an official record, including surveys and demarcation of communal land. But the traditional councils allocate land with their own system and record-keeping. Municipal and traditional systems don't connect, except when people apply for services and have meters installed. Complicating matters, the meters sometimes failed, or land was further subdivided.

"Your normal billing processes of having registered, national addresses... in the billing system, having a domicile, etc, that goes out the window," said Scruton. Which helps explain these mansions "worth many, many millions of Rand" in rural and peri-urban eThekweni. The owners are attracted to traditional authority areas not least "because there's no payment for services across the board". "It really is threatening the viability of the municipality." He said that non-revenue water stood at 54% for the 2023/24 financial year.

Scruton recalled how in the early 2000s the municipality rolled out infrastructure, "like there was no tomorrow", including to poorly serviced Ingonyama Trust areas. "We got into the very high 90s in terms of (the percentage of households) having access to a water supply system," said Scruton. But eThekweni became a "victim of its own success". With more people moving to traditional authority areas and "wholesale tampering", instead of all the homes in a particular system getting their allowance at the allotted time, water was diverted, benefiting fewer homes for longer. The system broke down. "So people... in those areas [are] dissatisfied with the level of service, which in turn has a knock-on, back onto the payment rate."

Scruton and his colleagues saw that traditional engineering solutions – "carrot and stick... and often more stick than carrot"

– would not work in these areas if applied in isolation. He doubted installing smart meters would end tampering. Technical solutions should be buttressed by social acceptance or be "doomed to failure".

He was upbeat, however, about a turnaround strategy to "arrest the decline and put us into an upward spiral". This aligned with a National Treasury plan to knock the country's 278 municipalities into shape by paying out certain grant funding provided they met performance targets.

So far, the unit had met initial targets, Scruton said. The focus had been on reforming its operation as a whole, including making the billing and metering chain better, improving customer experience and satisfaction, and enhancing leadership and knowledge management. They also aim to bring support services, like human resources, information technology, fleet management, supply chain management and finance, back into the unit. These were centralised some 15 years ago with a "debilitating effect on our business". Restoring them should make it more agile and responsive to customers, said Scruton.

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Scruton regards customer trust and satisfaction as vital to raising payment levels, referring to the rollout of an eThekweni smartphone app (with more than 100 000 downloads) that keeps consumers in the loop about repairs and problems. Prof Cathy Sutherland, of the WASH R&D Centre gave an overview of studies her centre and other colleagues were doing on payment for services. Picking up on Scruton's commentary on households in the Ingonyama Trust, she said land tenure arrangements were "shaping citizens' relationship with the state and perceptions of whether they should or should not be paying for water".

Anxious not to stereotype, she said their research – which spanned literature, legal and policy reviews, plus surveys of 105 households in case study sites and 500 households across eThekweni – revealed that 45% of residents do not pay for water services. This was particularly true of traditional authority areas. In low-cost housing projects and townships, payment levels were better, with affordability and reliability of services, big concerns.

Meanwhile, the city's revenue-centred model for funding water provision meant it treated consumers in the suburbs (careful to pay lest they be cut off) as the proverbial golden goose, deepening inequality. Overall, the ability of citizens to pay for water was declining, lowering the quality of the service metro-wide, and discouraging others from paying or prompting non-payment as a "mundane protest".

Water revenue

Not only was non-revenue water high in the municipality (the ratio of water not paid for by consumers, stolen or lost to leaks versus sold), average consumption was “very high” – up to 298-litres per person, daily, compared to the international average of 173-litres. eThekweni mayor Cyril Xaba on 10 October announced “curtailment plans” to cut consumption by 8.4%. But Sutherland noted the measures Xaba mentioned were “quite traditional” – metering; disconnection of illegal connections; line pressure reduction; and a drive to staunch leaks. The importance of paying wasn’t mentioned.

“We have kind of hit the perfect storm,” she warned, “We’ve got a (revenue-based) model . . . that cannot really sustainably meet the constitutional rights of citizens and support the mandates of the local state and ensure the adequate and just provision of services. We’ve got a circle of provision failure where citizens cannot afford to pay for services, so they don’t contribute to revenue, so they get less quality services.” Without revenue, the municipality can’t maintain or improve services, leading to poor service delivery.

“And so that cycle continues . . . [ending up] in low quality service delivery for the poor, increasing the costs for those who can pay and no real clear benchmark for who can and cannot afford water, and how that should be decided.” This increases municipal

debt, and costs society as a whole.

Sutherland said their research indicated a need to “build social compacts between the state and citizens” and she felt the water and sanitation unit’s turnaround strategy sought that. She said all people surveyed in eThekweni supported the provision of free basic water to the poor.

“The trick is,” Scruton said, “to identify those consumers who are really indigent so that the municipality could continue with a “certain (affordable) amount of cross-subsidisation.” Sutherland agreed that identifying who should pay could be tricky and called for more “localised, nuanced solutions” and hybrid governance, involving partnerships between traditional leaders and municipalities to “reframe citizen responsibility”. This was a big ask for a municipality seeking universal systems that can be centralised, but the complexity of eThekweni, with its 4.2-million people, demanded this.

Sutherland spoke of the added difficulties of a changing climate. Metro infrastructure was still recovering from the April 2022 floods, reminding us that new and existing infrastructure must be beefed up to cope with climate shocks, with implications for municipal finances.



According to a study by the WASH R&D Centre, up to 45% of eThekweni residents do not pay for water services.



eThekweni mayor Cyril Xaba has announced “curtailment plans” to cut consumption by 8.4% through metering; disconnection of illegal connections; line pressure reduction; and a drive to staunch leaks.

Elsewhere similar challenges emerged. Cape Town continued to learn from its Day Zero drought.

Dr Nicholas Simpson, chief research officer at the University of Cape Town’s African Climate and Development Initiative, told the webinar how water and sanitation charges had previously been a mainstay of City of Cape Town finances, representing about R2-billion or 14% of the money it raised itself. But this changed during the drought, from 2015 to 2020 as dams supplying the city came perilously close to running dry.

Increasingly stringent rationing culminated in a quota of 50-litres per person per day. This, an aggressive communication campaign and other measures, had the intended consequence of throttling use, with consumption in the metro more than halved. A “large swath” of Capetonians found ways to go off grid – including boreholes, rainwater harvesting and desalination schemes.

Simpson said in 2016 there had been 1 500 registered boreholes and wells in the city. By April 2019, the figure had soared to 26 000, with many more unregistered boreholes likely. Many with the means carried on consuming water at levels they had always enjoyed.

The unintended consequences: sales tanked, so did city finances. Cape Town, like eThekweni and other municipalities, had long levied tariffs based on consumption. It sought to recover the cost of operating its water systems from sales (while cross-subsidising the provision of cheap or free water to the poor). Meanwhile, the system needed to be maintained with little

scope to trim system costs. Bhagwan explained: “You can’t fire everyone because there’s no revenue, because you have a drought.”

And there was a real likelihood it might happen again. “The entire revenue model of the city is built upon the assumption that demand for those services, for water, would remain constant, or at least predictable over time, which for a policy world, makes good sense, but... we now live in a climate change world,” said Simpson. To put its finances on a sounder footing, Cape Town rejigged its tariff structures. Its 2018/19 budget reduced the number of steps in the tariffs, for a higher cost recovery at lower levels of consumption. “In addition, the city agreed upon the introduction of a fixed service charge for electricity and water and sanitation services, independent of consumption levels which they had lost.”

Simpson said the fixed service charges were intended to recover the cost of maintaining the service and its infrastructure. Meanwhile, the city had wrestled with governance of access to water. In the past dams were at the centre of water supply; now a hybrid of technologies was able to provide water at levels from household to big business. Simpson felt Day Zero had provided lessons Cape Town could draw on given the distinct possibility another dire drought may hit in the next 10 years, including recognition that investment in ecosystem services, things like clearing alien and invasive species from catchment areas, was “one of the cheapest and best options for biodiversity to... release more water into the system”.

“So quite a win there for biodiversity and water access.”