Water supply - converting a potential crisis into opportunity

By Garyn Rapson

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South Africa's water supply is predicted to reach a crisis point by 2030. But could better management of this critical resource actually be the economic saviour of the country? Dr Anthony Turton, professor in the Centre for Environmental Management, University of the Free State believes so.

Garyn Rapson, partner at Webber Wentzel

At a recent When the Wells Run Dry seminar, hosted by Webber Wentzel in Sandton, Turton explained that South Africa's population growth and the increased draw on the country's water supplies, will see the country needing 1.6 times the amount of water than will naturally be available by 2030. But, rather than looking at the uphill battle to secure our water future, Turton stressed that ensuring an adequate supply of water, together with new infrastructure and upgrading of existing infrastructure, could actually present untold opportunities for the country in terms of innovation, investment and job creation. In other words, this crisis could be a growth opportunity.

Innovation must be led by private sector

Realistically, however, innovation in the water space is unlikely to come from government, so the charge is going to have to be led by the private sector. Make no mistake, there is nothing philanthropic about business investing in large-scale water projects, rather it may become a strategic imperative if business wishes to continue operating effectively in this country.

A case study that business should be looking to as the potential future of water in South Africa is the eMalahleni Recycling Water Project, on the outskirts of Witbank in Mpumalanga. In 2007, Anglo American made a R300m investment into a state-of-the-art, world-first, mine acid drainage recycling plant. This plant, which processes 30-million cubic metres of mine drainage per day (to be upgraded to 50-million cubic metres in the near future), not only ensures that participating mines are self-sufficient in terms of their water supply, but also sees them supplying drinking water to the local municipality. In addition, one of the byproducts of the recycling process – gypsum - has been used to build housing for mine workers and their families.

The success of this project has been heralded globally and, at grassroots level, it has not only proved invaluable to Anglo American's Mpumalanga coal mine operations but is also giving the mine a healthy return on investment. What beggars belief, however, is that such a progressive and innovative project - which was commissioned over a decade ago - has never been replicated. Why?

Business needs to make the investment

One reason may be around financing. But given the enormity of the country's impending water crisis, business is simply going to have to make the investment, be it alone or via private equity avenues. Encouragingly, there is an appetite for this type of project. Marc Immerman, principal at Metier Sustainable Capital Fund, told the seminar that although they are not involved in the research and development side of things, the financer is more than willing to help companies secure finance and they are willing to invest in innovative water projects.

Catherine-Candice Koffman, head of infrastructure and telecommunications project finance for Nedbank, also stressed that South Africa's banks are looking for developmental opportunities, joking that if Immerman was prepared to invest, then so would Nedbank. Koffman noted that banks are looking for development opportunities and to put structures together to alleviate the problem. This needed to happen sooner, rather than later, before government red tape made innovating in the sector a challenge.

Government bureaucracy

In fact, the amount of government bureaucracy already in place may well be another reason for the slow uptake in projects akin to the eMalahleni Water Project. For business to proceed with these types of projects requires an in-depth understanding of national, provincial and local law surrounding water, and the ability to navigate all these respective departments. Regulation around water and the supply of water is very complicated, and it is very intricate in terms of the approvals needed to set up these types of projects. You are going to need a suite of environmental approvals, water services consents and municipal approvals. The arduous process of getting all the legal and municipal clearances can take up to 18 months for environmental impact studies and longer for municipal buy-in.

The eMalahleni initiative clearly shows why it is imperative for business to get a well-versed legal team in their corner to help navigate the myriad water and environmental laws pertaining to projects involving the supply of water. Sound legal advice will ultimately save a lot of time, money and frustration when embarking on these types of projects, the seminar heard.

Overly complex regulation

While navigating laws is what the likes of Webber Wentzel does best, the firm urges government to address the issue of overly complex regulation, especially when it comes to South Africa's water ecosystem. Government simply has to acknowledge that the enormity of the potential water crisis in 2030 means it will have to engage the private sector – just as the energy sector had to - to ensure the efficient supply of water.

Turton believes the type of projects South Africa needs to focus on include upgrades to all of the country's water treatment plants, building desalination plants at all major coastal cities in South Africa, as well as creating effective and efficient sewage and waste water recycling solutions.

The bottom line is if South African wants to have water security for the future, then all stakeholders must start taking collective responsibility for the country's water supply. This starts with the individual home owner installing rain water tanks and grey water systems, and extends to businesses innovating around sustainable water supply options for their operations. Large-scale public-private partnerships will play a vital role in the future of water in South Africa, and how we enable these collaborations today will determine our water security for generations to come.

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