

Water scarcity: government and business co-operation crucial

While not always the easiest of bedfellows, government and business partnerships in South Africa show what can be done to address water scarcity

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Farm workers work in a field at a farm in Klippoortie, east of Johannesburg. Agriculture accounts for 70% of freshwater consumption worldwide. Photograph: Sipiwe Sibeko/Reuters

Today is World Water Day, and with 2013 declared the international year of water cooperation by the UN, focus on this vulnerable resource is more intense than ever. The reasons for concern are summed up in the Worldwatch Institute's (WI) Vital Signs report: "Some 1.2 billion people — almost one fifth of the world — live in areas of physical water scarcity, while another 1.6 billion face what can be called economic water shortage."

Shortages and degradation of quality are serious threats to economic growth and social cohesion unless water is managed properly. One barrier to this is a lack of action at government level, which is why 45 companies signed a special communiqué at Rio+20

highlighting the urgency of the global water crisis and calling on ministers to take action.

The private and public sectors haven't always seen eye to eye over water, but necessity has created more of an appetite to work together.

South Africa is a good example of collaboration. Water is a serious issue here. Low rainfall and limited underground aquifers means it already has to import water from neighbouring countries, and supply is set to decline further if current trends of inefficient use, leakage and wetland destruction persist.

At the same time, the demand for water from agriculture, industry and growing urban centres is expected to rise by 52% over the next 30 years. Unless the problems are addressed, 2030 Water Resources Group (WRG) estimates there will be a water supply-demand gap of 17% by 2030.

The South Africa Strategic Water Partners Network (SWPN), a partnership between the Department of Water Affairs (DWA) and WRG, works with businesses such as SABMiller, Coca-Cola and Sasol to help South Africa address three priorities: improving the efficiency of water use and reducing leakage; reducing water use in the agricultural supply chain; and creating partnerships to treat effluent.

SABMiller, brewer of Castle Lager and Hansa Pilsener, has a net water footprint of about 511,100m litres for its South African operation — 95% of which is associated with growing crops. The company identified water shortages and quality as a risk to its agricultural supply chain and its brewing operation in Polokwane.

It is now working with local governments and the Water Futures Partnership to mitigate this. Plans include developing a local co-ordinating body to manage a rehabilitation and stewardship programme, safeguarding existing water resources and maintaining the integrity of the native ecosystem. It will also establish a Water User Association to provide data on water resources in the area and monitor groundwater levels on its hop farms.

"The public sector is an important and potentially very powerful partner," says Andy Wales, SABMiller's senior vice president of sustainable development, explaining the value of the collaborative approach. "Where we can bring business's innovative and strategic problem-solving approach to issues, a mandate and support from governments or local authorities can be critical to a project's success."

The Emfuleni Local Municipality, located approximately 70km south of Johannesburg, loses 44% of its water annually. At 36m meters cubed, that's the equivalent of more than 14,000 Olympic-sized swimming pools.

It's been working with energy company Sasol to better manage the water supply in the Orange-Senqu and Vaal River System, which supplies water to 60% of South Africa's economy and a large part of the population in Gauteng Province, the country's economic hub. Local infrastructure in this major river system is overwhelmed and, according to DWA, demand already exceeds the sustainable supply capacity.

Sasol has production facilities and business interests reliant on water supply from the Orange-Senqu and Vaal River System, and therefore needs to reduce the risks to its operations. Plans include providing water management expertise to the local municipalities, and repairing household, distribution and school water leaks to reduce municipal water losses in the Vaal River catchment area, which can be as high as 45%.

It is also running a water education and awareness campaign at selected schools, using materials developed by DWA, and sponsoring books for schools in the Metsimaholo municipal area.

"Our partnership is designed to go beyond our factory fence line so that we can help municipalities make substantial savings, so that they can focus on implementing further water conservation projects," says Alex Anderson, group media manager.

South Africa has some tough decisions to make about how to balance the water needs of a growing economy and population, while creating a sustainable, clean and secure supply for future generations. But it's made a good start with a model that other countries are looking to replicate.

"Public and private partnerships could offer a means to exchange best practices needed to adequately meet the growing demand of this essential resource," says Supriya Kumar, author of the WI report. "Such partnerships could improve investments in the right technologies while maintaining the status of water as a public and inherent human right."

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