

THOUGHT LEADERSHIP

An ecosystem approach to strategic industrial water management

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TALBOT AND TALBOT

It is a glaring reality that water scarcity is a growing risk to business across Africa. Industrial water use accounts for approximately 11% of total water usage in South Africa. It has been projected that in rapidly industrialising countries, industrial water usage could increase five times over the next 10 to 20 years. How current and projected water scarcity affects business in the long run needs serious consideration and careful management by industry leaders in order to ensure the future of business in Africa.

The water risk to industry is multi-faceted, presenting in a number of ways: escalating water and wastewater costs, more stringent regulations, water supply and quality failures, extreme weather events and even market share loss resulting from a tarnished reputation. All of these impacts are real and have the potential to significantly influence the financial viability of a business.

Managing the risk, however, is complex and can be extremely expensive if managed incorrectly; this often leads most business to avoid altogether until pushed to do so by a supply failure or escalating cost, at which point management is either not possible or at a premium.

Prioritise your water risk management

The key to managing water risk is prioritisation and management of the most crucial aspects before they result in a significant cost to the business. Companies need to identify the aspects – such as water availability, changing legislation or extreme weather events – to which each of their operations is vulnerable. These should inform the type and extent of strategic intervention.

This prioritisation process can be undertaken at a cursory level by staying up to date on the water supply and regulatory characteristics of each operation and ensuring this information informs management decisions. However, companies with traditional silo-structured management systems typically struggle to incorporate this information effectively due to the cross-boundary and interdisciplinary nature of water.

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Create your business' water ecosystem

Therefore, developing an 'ecosystem approach' to water management across a company by unpacking all crucial internal and external water interactions is not only extremely beneficial in managing risks, but more importantly, in identifying and optimising opportunities.

An extremely powerful tool for strategy development is using scenario analysis to model an operation's water 'ecosystem' across divisions and incorporate external pressures (such as rising supply costs). It is a tool that is very accessible with the day-to-day technologies available to business.

The benefits of this 'ecosystem approach' are numerous including prioritising spend against risk and opportunity significance, motivating informed CAPEX interventions, ensuring all departments are working towards a common goal and illustrating the 'bigger picture' to a broader audience.

Additionally, any significant changes to the pressures driving the system, a new regulation for example, can easily be incorporated and the strategy adapted accordingly, allowing the flexibility required to manage in a rapidly changing environment.

In the long run an ecosystem approach to industrial water management will play a vital role in ensuring water security, efficiency and improved service delivery, allowing for operational and capital savings and ultimately competitive advantage, while securing the future of business. ■

