

Water & Waste Management

Stream of solutions for husbanding liquid assets

Resource management

Mike Scott considers developments in treatment and supply

Despite its fundamental importance to life, water is often taken for granted, particularly as a business issue. Yet the availability and quality of water is crucial for companies in an increasing number of sectors.

The United Nations forecasts that by 2030 almost half the world's population will live in areas facing water stress or water scarcity. Less than 1 per cent of the world's supplies is easily accessible fresh water and "the effects of climate change, increasing population, urbanisation, per capita demand, and pollution damage to supplies will put even greater pressure on these limited resources," says Marcus Norton of the Carbon Disclosure Project.

The CDP, which collects details of businesses' carbon emissions, so that investors can assess their exposure to climate change issues, has just launched a Water Disclosure initiative to do the same thing with water.

Water scarcity is a growing problem in many parts of the world, says Mr Norton. "At present, however, business awareness of the issues, risks and opportunities is limited and investor understanding of the threats and opportunities is even less developed."

Recently, the issue of water has been overshadowed

by climate change, but the first impact on businesses of climate change may well be a decline in water quality and availability. While agriculture is responsible for 70 per cent of water use, the CDP highlights a whole range of economic activity that will be affected, from heavy industries to high-tech areas such as pharma and semiconductors.

The food and beverage sector will be one of the most affected, but Andy Wales, head of sustainability at global brewer SABMiller, points out that "we do not need to see this as an alarmist story. There are solutions. If we are water-smart, we can manage the challenge in a way that will not affect growth."

'Much of what you can do to cut water use is not about water, it is to do with improving farming practices'

Certainly, water is a sector that investors like, attracted by its strongly-regulated nature and the breadth of opportunities.

According to a report by Marc-Olivier Buffle, analyst at SAM, the sustainable investment specialist, the development of the water market is being shaped by four big trends: explosive population growth; the need to replace infrastructure in developed countries; higher standards

of water quality; and climate change, which will change rainfall patterns, cause glaciers to melt and bring other disruptions to supplies.

"This situation opens up opportunities to all businesses offering products and services for the treatment, supply or use of water," says Mr Buffle.

SAM identifies four main segments of the market: distribution and management; advanced water treatment; demand-side efficiency; and water and food.

The sector provides opportunities right across the value chain, says Bruce Jenkyn-Jones, investment director at Impax Asset Management, investment managers for the environmental sector. These range from metering to irrigation.

One area that is attracting interest is water recycling, which has become much more viable because of a fall in the price of the technology that filters pollutants from waste water.

Few regions go to the lengths of Singapore, which collects its waste water, treats it and re-uses it for industrial applications.

NEWater – the name given by the Singaporean Public Utilities Board to its fully recycled waste water – is pure enough to be drunk from the tap. Singapore has built a strong water treatment sector. However, elsewhere there remains widespread cultural resistance to recycled water and indeed, many countries ban the re-use of water, says Mr Jenkyn-Jones.

A more palatable, but much

more energy-intensive, solution is desalination, which is attracting a lot of attention in the Middle East. Desalinated water supply was 9.8bn cubic meters in 2000 and is set to reach 54bn cu m by 2020, according to Lux Research. Companies looking to exploit the demand include Modern Water, which has commissioned a plant in the Gulf state of Oman, while a start-up company called Subsea Infrastructure is developing a floating desalination plant.

Another promising area is information about usage, which furnishes some of the simplest solutions for managing water resources, Lux says. Water information technology is a \$530m market, but is set to grow, the group says, providing opportunities for companies such as Derceto, which offers technology for reducing energy usage.

When SABMiller analysed its water usage, it discovered that the biggest proportion went on growing the crops used in its beer, so it focuses on lower tech solutions such as working with farmers to improve water use. "Much of what you can do to cut water use is not about water at all, it is to do with improving farming practices."

In Africa, it is increasing its use of indigenous crops, cassava and sorghum, as feedstocks for its beers, because they are more robust than barley. "When you take a water lens to your value chain, you find opportunities that you would not have otherwise considered," says Mr Wales.