

Business Community

Water makes a critical contribution to all aspects of personal welfare and economic life. However, global water resources are coming under increasing pressure from growing human demands and climate change. Protecting water resources, optimizing the use of water across personal and water-intensive economic activities, and establishing sustainable levels of future supplies of water resources and services, provides a major technological challenge and opportunity. The ability of the business community to respond to these issues will help to secure the future sustainability of water resources and raise economic and social welfare to attainable levels.

Water is important for businesses of all kinds and for most companies it has not been a pressing concern – either for its availability, cost or quality. However, this is likely to change for many companies.

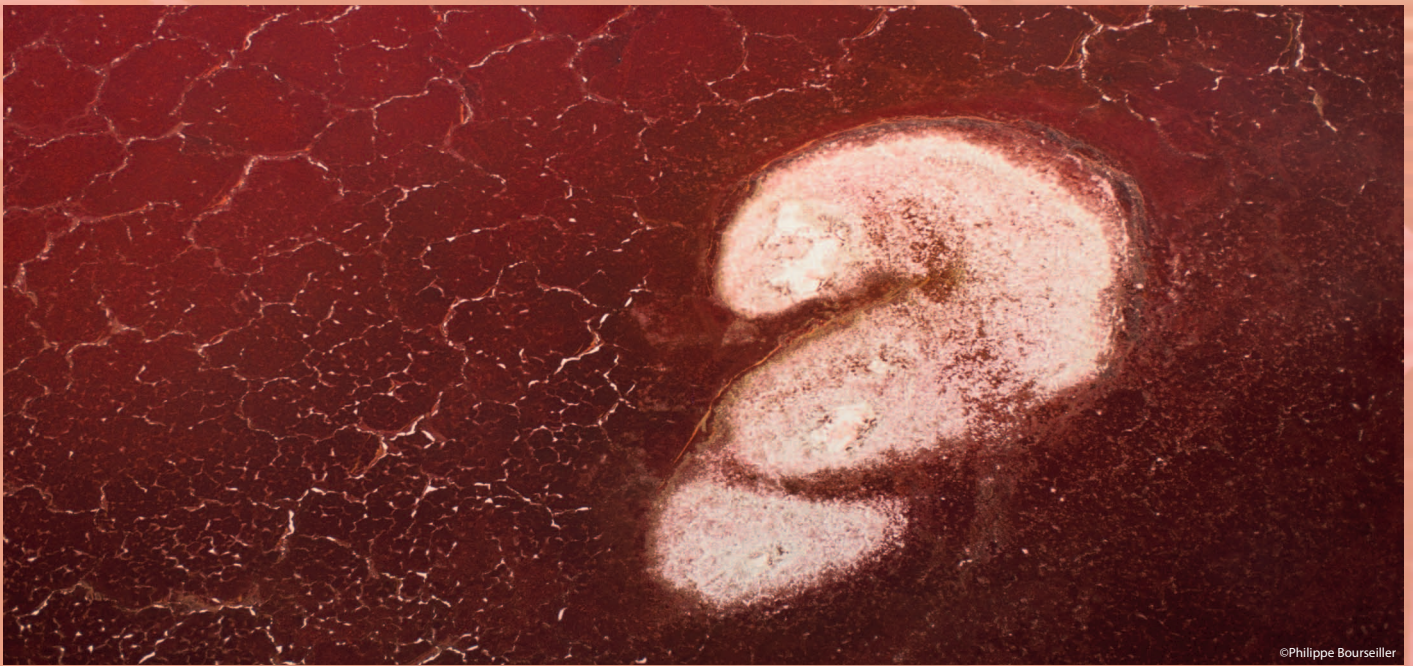
The demand for water in developing countries could increase by 50% over current 2011 levels. Over 40% of countries could experience severe freshwater scarcity by 2020. This would occur mostly in low-income countries or regions in sub-Saharan Africa and Asia. Water stresses would increase the dangers of political unrest and consequent conflict. Businesses operating in such regions could see their operations affected, no matter how careful they were in their own water use.

Many industries require a sustainable supply of water in the right quantity and quality, at the right place and right time, and at the right price. Industry will find itself competing more and more for limited water resources as water demands and consumption increase in all sectors, particularly agriculture with its substantial water needs. Industry cannot remain indifferent to the unsustainable use of freshwater resources, whatever its degree of accountability which it is responsible. It must start by addressing its own systems and technologies, and consider the wider impact of its water use on its host communities and regions.

Water is increasingly becoming a critical factor in decisions for the location of economic activities such as industry, mining, power and tourism. Companies working, or contemplating investment, in water-stressed regions are becoming aware of their 'water footprint' and its impact on local communities, which could pose operational and reputational risks to their business. A growing number of countries will face increasing difficulties in providing water to their expanding, water-intensive cities, farms and industries. In such cases, investment in measures to bring supply and demand into a better alignment can safeguard future development.

Such problems also create opportunities for business. Water-related technologies are a large and growing market. Innovative technologies will be needed that improve crop yields and drought tolerance, and produce smarter ways of using fertilizer and water. There is also demand for new pesticides and non-chemical approaches to crop protection, technologies that reduce post harvest losses and enable more sustainable livestock and marine production. The growing water stress in many regions is creating opportunities for the re-use of wastewater. The recycling of municipal wastewater for agriculture, urban landscaping, industrial cooling, groundwater recharge, restoring environmental flows and wetlands, and for further urban consumption is rapidly growing in water-scarce countries.

Water is heavily involved in the supply of energy, which is an equally important concern for most companies. There are different sources of energy and electricity, but all require water for various production processes, including extraction of raw materials, cooling in thermal processes, cleaning materials, cultivation of crops for biofuels and powering turbines. Conversely, energy is required to make water resources available for human use and consumption through pumping, transportation, treatment, desalination and irrigation.



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Regions that are water scarce will face more water-for-energy stresses than others and will need to explore more water-efficient technologies to develop both primary energy and electric power. Water and energy policies, which are often made in different government departments or ministries, will need to be integrated with policy-makers increasingly working in networks.

Different developmental sectors are often in competition with each other for the finite water resources upon which they all depend. While they can be 'in competition' over water, it is clear that *all* the benefits of water are required for sustainable economic development. In countries and regions where water resources are limited, decisions made to generate benefits through water from one sector often produce negative consequences for other sectors. Where water resources are limited, certain trade-offs may be required when allocating water towards different uses, in order to maximize the various benefits water provides in different sectors and domains. This is a critical, yet difficult and complex challenge in which all stakeholders, including the business community, should be actively participating.