

water... the next carbon?

Water may be the next utility to make a real difference to the environmental bottom line – Vicky McAllister explains.



■ Over recent years, the issue of climate change has steadily risen up company, government and society agendas and is now recognised as a significant business issue which must be managed. Another significant issue closely linked to climate change, and equally important, is that of water. Business leaders recently urged water, climate change and energy discussions to be linked in global negotiations, including the forthcoming 'COP 15' meeting in December, where post-Kyoto deals will be discussed. The resulting World Business Council for Sustainable Development (WBCSD)'s publication, called *Water, Energy and Climate Change: A Contribution From the Business Community*, was launched at the fifth World Water Forum in Istanbul, and made several recommendations including integrating water and energy efficiency in measurement tools and policy, bringing water issues into the mainstream and encouraging best practice through innovation and community engagement.

water as a business issue

So why is water a significant issue for business? Dr Dave Tickner, head of freshwater programmes at WWF UK, identifies four key business risk areas arising from water scarcity and management issues ¹:

- **Physical risks** – arising through flooding, pollution and scarcity of water in the regions in which an organisation operates. This scarcity can be caused by an actual deficit of water or through a failure of supply from water managers. This is especially true for water intensive sectors, which may have to transfer operations to a more water rich area, or one where the regulatory environment is more coherent.
- **Financial risks** – arising from competition, increase in water tariffs and other pricing mechanisms and cost inflation of water and energy as a result of increasingly water-stressed regions globally. Higher costs, plant closure and reputational hits are other risks arising as a result of water scarcity.

- **Regulatory risks** – as water scarcity and corruption and security issues increase, the government may decide to control business water use and decrease the number of water extraction licences issued, or change the rules which govern water use, licensing and allocation or the costs and conditions of water put back into the system.
- **Reputational risks** – those businesses that fail to understand the impact that their operations, supply chains and discharge have on water resources, aquatic ecosystems and local communities are leaving themselves open to reputational risks and potential loss of customers and investors.

An Arthur D. Little report published in 2008 stressed that organisational risk management should be a proactive rather than reactive action, and failing to make water management a strategic issue could lead to challenges relating

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to water security, supply chain risk, regulation, failing to meet consumer and investor expectations and local vulnerabilities.

actions for business

Water footprint

So, what can organisations do to start managing this issue? One action is the determination and calculation of their water footprint, to ascertain where material water issues originate (both in terms of the region affected and the impact itself) and how they can be managed. Calculation of this footprint then leads onto comprehensive disclosure on the issue within annual and sustainability reports.

An organisation’s water footprint can be thought of as its ‘direct’ and ‘indirect’ or ‘virtual’ water impacts:

- **Direct water** – ‘internal’ water that is used directly from the tap, taken directly from a company’s own water resources.
- **Virtual water** – water that is used throughout the entire ‘cradle to grave’ process to produce a product or service (for example, water used in order to grow crops, feed animals and use products at the consumer end of the supply chain). Virtual water is much more complex to measure than direct water.

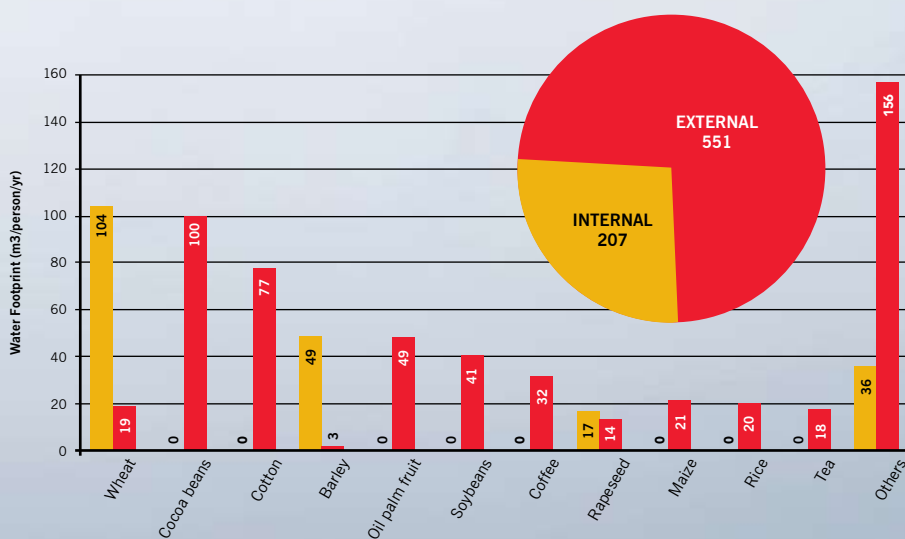
The concept of calculating organisational water footprints is still relatively new. Work done so far includes WWF UK’s ² research on calculating the UK’s water footprint in the food and clothing sector, published in 2008. Using methodology developed by Chapagain and Hoekstra and national trade data from

PC-TAS, the resulting statistics and report provide an informative overview of the issues involved, and have been widely used at water-related events both in the UK and overseas. Figure 1 below demonstrates the results of the agricultural footprint of the UK, showing that certain imports (coffee, cotton, oil palm fruit, cocoa beans, to name a few) have zero internal footprint but a significant virtual footprint that is felt by the exporting country.

WWF UK also lays out key action points for business, government and consumers in terms of reducing water footprints.

The WBCSD has published a Global Water Tool ³, the second version of which was launched at the World Water Forum in Istanbul. It is a free, user friendly tool that businesses can use to map out the water use

Figure 1 – UK’s agricultural water footprint (taken from WWF UK publication)



of their products, services and operations and assess risks relative to global operations and the supply chain. Businesses using the tool can ascertain what proportion of sites, employees and suppliers are in water-stressed areas, and as a result enable calculation of water consumption and efficiency leading to comprehensive reporting, communication with stakeholders and risk identification and management.

The Water Footprint Network ⁴, a non-profit, multi stakeholder, Dutch-based foundation, also provides a water footprinting methodology, which is the basis for the WWF UK research outlined above. The network’s aims are to promote water footprinting and provide an ongoing information resource for members and other stakeholders on the issues – including the development of standards, tools and methodologies for measurement and management.

1. http://assets.wwf.org.uk/downloads/understanding_water_risk.pdf
 2. http://www.wwf.org.uk/what_we_do/safeguarding_the_natural_world/rivers_and_lakes/water_footprint/index.cfm
 3. www.wbcd.org/web/watertool.htm
 4. <http://www.waterfootprint.org/>

water.. the next carbon? (continued)

engaging with government on public policy

Calculating a water footprint and disclosing information on this and how the impact is being managed is one element of the drive towards sustainable water use. However, as Dr Dave Tickner points out: “doing this in isolation to government regulation is ineffective, as one single organisation’s efforts will be in vain if another can simply use the water saved. Private sector organisations need to engage with government and other stakeholders on public policy of water – the extent to which and how water use should be regulated, monitored and managed.” Due to the nature of the water issue, it’s important that engagement is developed and carried out on a local level, as there is no ‘one size fits all’ approach.

The recently formed ‘Water CEO Mandate’⁵, launched in July 2007, is the first public-private initiative designed to assist companies in the development, implementation and disclosure of water sustainability policies and practices. It is governed by the UN Global Compact and the Swedish Government and seeks to align itself with the UN Millennium Development Goals. Signatories commit to making water resources management a priority and to work with governments, UN agencies, non-governmental organisations and other stakeholders to address this global water challenge.

CASE STUDY: SABMiller, the global brewery company, has identified water as one of its three ‘opportunities for global leadership’. It has comprehensively measured and reported on its water footprint in different regions of operation, and devised a ‘5R’ model of water responsibility (see Figure 2). Its overall goal is to brew more beer using less water, and in doing so to reduce water use per litre of beer by 25% by 2015. It plans to achieve this by identifying which sites are most at risk from water stress, strategic investment in efficient technology at brewing plants, engaging with public sector authorities on water issues and ensuring that local managers have sufficient information, capability and flexibility to take water efficiency into consideration when managing the plants. Through its value chain water footprint of beer and soft drinks in South Africa, undertaken by independent consultants with strategic advice from WWF, SABMiller has been able to identify the key agricultural crops and growth areas which present long term risks to the value chain due to water scarcity. It is using this insight

to focus its engagement with its farming suppliers to improve water efficiency and yield management. SABMiller reports on these issues in its annual sustainability report and annual report.

Figure 2: SAB Millers’ ‘5R’ model of water responsibility

**Water and the accountancy profession**

ACCA sees water as a key focus area for the accountancy profession moving forward.

Although much of the work being done is still in its infancy in terms of water reporting and footprinting, the profession can play a key part in the following areas:

- involvement in the development of a reporting standard on water for organisations to use when disclosing information on their water footprint and approach to water management
- participation in the development of water footprinting methodologies, for use internally in organisations and public sector bodies
- engagement in the public policy and regulation debate on water supply
- providing disclosures on water use and management, for use in annual reporting cycles
- auditing any data on water use and management
- evaluating and monitoring any risks arising from water security and water management
- investigating and promoting investment in water efficient technologies, and evaluating the returns on these investments
- advising organisations and clients on forthcoming water-related regulation and how it can impact on the bottom line.

ACCA is making water one of its key work streams for 2009, and fully advocates the consideration of climate change and water as a combined, interlinked issue. A project planned for late 2009 is the ‘Water Jigsaw’, which will be an on-line information portal for ACCA members and other stakeholder groups on

significant water issues relevant for business and governments around the world.

Next steps

Water security is an issue which is not going to go away: a recent UN report predicted that half the world’s population will live in water-stressed areas by 2030, as a direct result of climate change, population increases and the resulting greater need for food and energy. The accountancy profession has a key part to play in the development of standards and frameworks for organisations to work with in order to decrease their impact. ACCA hopes that a more proactive approach is taken towards water – a basic human right – than that taken to climate change, where several years passed before business and government turned their attention towards addressing and managing the issue. ACCA hopes that a global water reporting and accounting standard will eventually be on business and governments’ agenda, in the same way that discussions over a global carbon reporting standard are occurring at the moment.

Vicky McAllister – social and environmental projects officer, ACCA

Water was the topic of a recent ACCA ‘Friday Forum’, where Dr Dave Tickner and Andy Wales were invited to come and speak to delegates on the issues raised in this article. A discussion paper will be published as a result of this event in April 2009. For more information, email vicky.mcallister@accaglobal.com.

5. http://www.unglobalcompact.org/Issues/Environment/CEO_Water_Mandate/index.html