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Are You Up to Speed?"



Business for Social Responsibility

■ IN PERSPECTIVE

Mostly Water

A Not-Just-Business Case for Addressing the Global Crisis of Our Life-Sustaining Liquid

BY DIANE OSGOOD, BSR

No matter how you look at it, we humans are mostly water. The brain is about 70 percent water, the blood is a little over 80 percent and the lungs are a whopping 90 percent. Regardless which figure you use, it's a reminder of the importance water plays in our everyday lives as humans, as consumers and as members of the responsible business community. Just as water is integral to our own lives, it is fundamental to every single industry in the corporate world — from agriculture to high technology.

It's not a stretch, therefore, to say that the current global water crisis threatens our license to do business. Consider some striking facts:

■ Over the past hundred years, the world population has quadrupled, while water



use has grown by a factor of seven.

■ 1.1 billion people — about 16 percent of the world's population — lack access to safe water.

■ In 43 countries, 700 million people live in areas considered to be under severe water stress.

■ By 2015, an average annual investment of \$772 billion will be required for water and wastewater services around the world.

Behind every one of these figures are real stories — people suffering because they cannot access clean water, governments that don't have the resources to make changes and the predicament of companies operating in this landscape. With 25 percent of the world's water used for industrial purposes, the private sector is charged with helping solve the crisis. It

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Web 2.0: With the Whole World Watching, Are You Up to Speed?

BY ARON CRAMER, BSR

Forty years after the tumultuous spring of 1968, 2008 has brought a raft of retrospectives on everything from the Prague Spring to the student riots in Paris to the political assassinations in the United States. Indeed, 1968 was one of the most significant years since World War II.

One of the defining events that year came during the summer, when Vietnam War protesters at the U.S.

Democratic Party convention in Chicago made political history while chanting, “The whole world is watching.”

That phrase signaled a change toward a more open world in which citizens demanded greater transparency of government. As an omen of change, it was at least as relevant for business as it was for politicians. The '68 generation had an instinctive sense that the world in which they lived was much more open, and their prescience has even greater relevance now. Today's new technologies have enabled such unprecedented openness that sometimes it seems like the whole world is not only watching, it's uploading video.

When Web 1.0 emerged in the mid-1990s, it unleashed a thorough change in the relations between business and society. Now, thanks to user-generated media, social networks and ubiquitous, mobile computing, the intersection of business



and society is undergoing a second wave of massive change. In our view, the implications of the Web 2.0 world for sustainability are not yet fully understood. Blogs, wikis, user-generated media and other emerging technologies empower individuals by allowing them to reach a worldwide audience overnight.

The effects this will have on business are accelerating fast. For example, CSR reports continue

to rely on text and mostly one-way communications, while dynamic two-way or group communications are quickly becoming the norm. At the same time, the very concept of who stakeholders are is changing. Many companies continue to think of stakeholders primarily through the lens of relationships with well-established civil society groups, while the rise of social networks and empowered individuals means floating coalitions are starting to have a stronger voice in CSR.

Some companies are beginning to embrace the Web 2.0 world, moving beyond one-way communications to more interactive uses of new media. CSR blogs were the first iteration, and some companies have even graduated from this form. Starbucks has created a new customer site, at www.mystarbucks-idea.com, with a CSR page that has lively debates over what the company is and could be doing to be more sustainable. BT's

latest sustainability report features several podcasts and videos (www.btplc.com/Societyandenvironment/CSRresources/Watch/Videoclips.htm). And AccountAbility has used a wiki (www.accountabilityaa1000wiki.net/index.php/Main_Page) to develop the latest version of AA1000, the leading standard for stakeholder-driven assurance of sustainability reporting.

Despite these examples, it is very early days for CSR's debut in Web 2.0. In May, at SAP's SAPHIRE conference for users and customers in Orlando, Florida, new media experts agreed we're witnessing the beginning of a fundamental communications transformation. "We expect new media to become more than just a driver of change in corporate governance and accountability," said Diane Osgood, Vice President of CSR Strategy for BSR, who spoke at the conference. "It will become an enabler of new types of solutions to the complex problems the world faces. Take, for example, climate change: Experts and citizens around the world are able to collaborate more effectively via new media tools to co-develop the innovative solutions the world requires."

The implications of the new media world touch all aspects of business. In our view, however, the five topics below illustrate how core aspects of the CSR agenda are being remade. Together, they comprise a checklist that any company can use to gauge whether it is taking full advantage of the reshaped world.

■ **Redefining stakeholders:** The title of the new book by New York University professor Clay Shirky, *Here Comes Everybody: The Power of Organizing without Organizations* (Penguin Press 2008), taps into the changing ways stakeholders may be defined. For the past 15 years, the concept generally has applied to established institutions. More and more, stakeholder groups are actually shifting coalitions of individuals that coalesce around a single issue or theme. They may appear out of nowhere, and have no center. This will radically remake the ways businesses interact with society.

■ **Redefining reporting:** Similarly, new media mean that the days of a single sustainability report may be numbered. Multiple platforms enable companies to target distinct messages to distinct audiences. They allow for two-way communication.

Diverse media platforms also help un-tether reporting from an annual cycle that may not make sense when some issues evolve rapidly and others change slowly.

■ **Redefining sustainable products:** The arrival of open source product design holds the potential for making significant advances in sustainability. Work pioneered by the likes of MIT's Nitin Sawhney looks at ways to bring the open source movement to the development of products — to address sustainability challenges. Soon, large companies will begin migrating toward a more open product development process, which gives great potential to develop social enterprises inside the world's largest companies.

■ **Redefining supply chain sustainability:** As companies continue to struggle with managing labor and environmental practices in supply chains, there are new opportunities to increase transparency and effectiveness, while reducing repetitive factory monitoring. First, the explosion of mobile technologies provides the basis for workers to self-report factory conditions. Second, and with the need to sort out the obvious privacy concerns, it may be possible for buyers to use sophisticated measurement devices to obtain real-time information on factory conditions, especially on environmental, health and safety matters.

■ **Redefining employee engagement on CSR:** Finally, these new communications platforms offer multiple means of communicating with employees. Internal blogs and wikis are starting to appear as internal communications tools, but they have not yet been applied to invite employees to provide input on assessment of company performance or to define which CSR issues are most material to a company's workforce.

Roy Amara, founder of the California-based Institute for the Future, who died earlier this year, once said that the impact of technological change is overestimated in the short run, and underestimated in the long run.

The impact of Web 2.0 has been underestimated in the short term. This is about to change, and fast. Just as during the first wave of internet penetration, companies that get on the right side of this change will benefit greatly, and those who don't will wish they had. ■

Aron Cramer is President and CEO of Business for Social Responsibility.

Web 2.0 Technologies

- Blogs
- Wikis
- Video sharing
- Online social networking platforms
- Social bookmarking

The Human Right to Safe Drinking Water

Business Responsibilities and Opportunities in Managing the Global Water Crisis

BY PATRICIA DANDONOLI, WATERAID AMERICA

Supporting the human right to water will impose new responsibilities on businesses, but it also has the potential to increase productivity and revenues and improve water management—benefiting businesses and citizens alike.

In 2002, the United Nations Committee on Economic, Social and Cultural Rights issued a statement that “the right to water clearly falls within the category of guarantees essential for securing an adequate standard of living, particularly since it is one of the most fundamental conditions for survival.”

On February 28, 2008, the UN Human Rights Council strengthened the right to water by establishing a new independent expert to gather evidence on current water provision and clarify human rights obligations. In spite of objections by the Canadian and U.S. governments, the UN also issued an accompanying statement reiterating that all governments are bound by human rights obligations to ensure safe water and sanitation for all.

These declarations were important landmarks for citizens worldwide, especially the 1.1 billion people who currently live without access to safe water. The vast majority of those people

live in poverty in developing countries and have little political voice. Until recently, the charity of others was the only hope many had for securing access to safe water. The designation of water as a right changed this paradigm, guaranteeing that poor communities’ access to water was an entitlement rather than a mere aspiration, and it put the obligation on governments

to fully implement the legal right to water within their countries. Today, governments are challenged to work toward universal water access, and to regulate industrial, agricultural and other activities that affect water supplies.

Three Ways Business Can Help Ensure Water Access

For the corporate world, safeguarding citizens’ access to water is not merely an optional “best practices” principle, but a mandate — it is a part of their social contract with the communities in which they work. All businesses need to consider how their practices may affect water availability, quality and access

— and there are three ways to do this.

First, companies can consider their own employees, and ensure that there is adequate access to water within the workplace. While there is no legal obligation to do so, companies should also

consider investing in improvements to local water supplies, which can boost employee productivity by decreasing the risk of water-related illnesses and lowering the number of hours employees spend collecting water at home.

As a second step, businesses should consider how their actions affect the water access of the wider community. Ideally, this means examining not only their own actions but also their entire supply chain and thinking about the actions of their suppliers, contractors and customers in addition to their own.

The degree to which businesses can help improve the quantity of water available varies hugely by location. Factors such as demographic trends, increased affluence, manufacturing and agricultural production all increase demand for water. At the same time, water supply may be dwindling due to climate change and drought. While major companies using large quantities of water in industrial or agricultural processes have the greatest impact on water availability, in water-stressed regions, even the



Establishing water points at the heart of a community saves local people from long walks to find water.

WaterAid/Marco Betti

operations of small-scale businesses can have an impact on water supply. Especially in water-stressed regions, businesses must consider everyone within a water catchment area, which includes those in the immediate vicinity as well as those many miles

away or across national boundaries.

Businesses can support better water quality by ensuring their processes don't pollute water sources — a particularly important measure in areas where communities rely on untreated water, as is the case in many rural areas in developing countries, and in areas where drinking water quality is not monitored.

The third step businesses can take is to ensure the accessibility of water, which includes making water available at a price that is affordable. Private water-supply companies have an obligation — and, in some countries, a legal mandate — to ensure that poor communities are not excluded from water services on the basis of price. Often this means providing subsidies to consumers below a certain

income threshold, and increasing efficiency to keep costs and prices down for everyone. Companies involved in water provision also have the obligation to work toward expanding water services into unserved areas.

Even if your company is not a

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Defining “Access to Water”

The UN identifies the three important elements of access to water as **availability**, **quality** and **accessibility**. Water availability means people should have sufficient quantities for essential domestic purposes, including drinking, sanitation and cooking. Water quality means that the water should be safe to drink and of an acceptable color, odor and taste. Water accessibility means water should be affordable and within an acceptable distance from homes, schools and workplaces.

Solving a Wicked Problem

The Case for a Paradigm Shift, Collaboration and Innovation

BY ZOË WILSON

In 2000, Cochabamba, Bolivia, rose to global notoriety as the anti-privatization lobby's iconic struggle. When the newly privatized water company imposed a large rate increase only a week after taking control of the Cochabamba water supply system, many people found themselves facing bills of more than 25 percent of their monthly income. The privatization effort became a lightning rod for general discontent, and thousands took to the streets in protest. The events culminated in the termination of the privatization contract and the reinstatement of the local water utility, SEMAPA, under community control.

In spite of this apparent victory, today, half of Cochabamba's 600,000 residents remain without reliable piped water; for the lucky ones, water flows from their taps for up to 14 hours a day.

The Cochabamba case is just one of many indications that the looming global water crisis is a *wicked* problem — one that is twisted up with so many other issues that solutions often give way to new problems. Never before has humanity consumed such a vast proportion of the globe's water resources, and never before have so many people been without access to clean water. Initiatives to improve water and sanitation for the world's poor are affected by political, ideological, economic, social, cultural, climatic and environmental issues in ways that make the consequences of good ideas difficult to predict and control. Difficult, perhaps, but no less vital — especially for those in the corporate sector.

To stay competitive, companies need to build organizations that see challenges and opportunities from an unconventional point of view. This will require two things: being open to a

paradigm shift in the water sector and learning to leverage the link between unconventional collaboration and innovation.

Paradigm Shift

In 1900, Lord Kelvin infamously asserted, "There is nothing new to be discovered in physics now." Five years later, Albert Einstein published his seminal paper on special relativity. What ensued was a paradigm shift — a complete reorganization of what we thought we knew on the subject. The physics of Kelvin's day was bound to change with the times, and change in the water sector today is just as inevitable. While there is no easy solution to the crises and contradictions, many of world's water stakeholders — from nonprofit institutes to governments to those in the corporate world — have agreed on the need for a paradigm shift.

It's long overdue, as Richard Feachem, the renowned health expert and former dean of the London School of Hygiene & Tropical Medicine, argued in 1983: Contemporary water systems "are not especially clever, nor logical, nor completely effective — and it is not necessarily what would be done today if these same countries had the chance to start again." Just as Einstein's discoveries made "physics as usual" preposterous, so too has the water sector reached a turning point.

Innovation and Collaboration

The good news is that the information age has opened up new political space and new technological scales for intervention. Indeed, innovation and collaboration have become inseparable. As a result of the changing information and opportunity landscape, it is now possible to talk seriously about appropriate technologies and distributed infrastructure at scale, especially in developing countries, where centralized infrastructure is

often in an advanced state of decay, traditional investment solutions have been lost



and pound-for-pound health benefits have gone unrealized. On the forefront are innovators piloting new technologies at scale by using the combined resources of not just engineers, but experts in everything from business and marketing to political science and urban planning. The smart companies will keep these frontier innovation hubs on their radar screens.

The shift toward innovation has happened not a moment too soon. Utilities and water companies like to think big, but the most acute water- and sanitation-access problems tend to be experienced by people living off the grid, in rural areas and villages, where mainstream technologies are rarely found. Supplying technologies that households, small communities and business clusters can afford to purchase, operate and maintain is a key part of meeting the United Nations Millennium Development Goals.

The developers of the Slingshot, one such small-scale distributed water-purification system (which has drawn attention from trendy blogs and popular American media) are intriguing, as is the company's attempt to establish a distribution network through rural entrepreneurs. There is a growing repertoire of small-scale and distributed infrastructure technologies that might be worthy of a second look, such as the urine-diversion toilet, bolstered by the Swedish EcoSanRes network, and decentralized water-treatment plants, manufactured by the Bremen Overseas Research and Development Association (among others). Are innovative approaches like this just a stop on the way to a fully reticulated

end-of-the-pipe future — or are they an integral part of the future itself?

Consider that young economies are starting to emerge where efficiency and innovation create new sources of water and improved sanitation. In Durban, South Africa, for example, to meet the constitutional obligation to provide Free Basic Water (FBW) in rural areas, the utility drew on a widening store of options to design an FBW-delivery system coupled with a urine-diversion toilet. To date, 60,000 household-level package units have been delivered — an intervention that has significantly improved community health standards. Local business spinoffs in Durban include Utility Systems, which manufactures the smart meter that calculates and automatically disperses the daily FBW to the households' new water tank, and Environsan, which manufactures the urine-diversion toilet pedestal and child seat.

The urgency of the water question in many countries is bound to be a major driver of technological change and product innovation, which is often identified as one of the key strengths of the private sector. But in order to unlock the creative potential of the water sector, its players must take stock of the lessons learned since Cochabamba. To address this wicked problem, it's necessary to begin that shift in paradigm, with a view toward developing a new understanding of future water requirements, and the partnerships that will move product innovation to sustainable implementation. ■

Zoë Wilson, a social feasibility expert working in the water sector in South Africa, recently completed a Visiting Lecturer position at the Massachusetts Institute of Technology. She can be reached at wilsonz@ukzn.ac.za.

Asking the Right Questions to Improve Water Efficiency

Simple Strategies Every Business Can Employ

BY KURT CULBERTSON, DESIGN WORKSHOP

A half century ago, John F. Kennedy said, “Anyone who can solve the problems of water will be worthy of two Nobel prizes – one for peace and one for science.” Kennedy was correct in his assessment that solving the global water crisis is a lofty mission, but what he neglected to mention is that even the small changes help – and if you implement them at the level of your business, it’s likely to have an even bigger impact.

In his book *Tapped Out: The Coming World Crisis in Water and What We Can Do About It* (Welcome Rain 1998), former Illinois Senator Paul Simon wrote that within a few years, “a water crisis of catastrophic proportions will explode upon us — unless aroused citizens...demand of their leadership actions reflecting vision, understanding and courage.” Guided by an awareness that water is a scarce and valuable natural resource, businesses have a mandate to assume a leadership position to ensure change. A comprehensive water strategy must become an integral part of a company’s risk-management strategy, and it begins with a clear understanding of the water demand,

Just as “green” has become a necessity of doing business in today’s world, companies who take the lead on water conservation and begin to devote resources to reduce water demand will force the world to listen and follow.

consumption and reuse strategy of the company, its products and processes.

Every company has certain common denominators: Each has physical grounds, buildings and structures; each has operations; and each has a certain sphere of influence, which

might be small for some, or at the international level for others. Within each of these areas, companies have an opportunity to make changes that will improve the water problem — even if these solutions aren’t worthy of Kennedy’s so-called Nobel prizes for science and for peace.

Physical Grounds and Buildings

Knowledge of the hydrological cycle is key to planning, replenishing and conserving water in every space and landscape — even at the micro level of a company’s own physical grounds and structures. It is increasingly possible to create systems in buildings that harvest freshwater directly from rooftops to irrigate landscapes or flush toilets without the expense of treating it first. For example, in many Australian municipalities, rainwater-capture tanks are encouraged, which has spawned a robust industry

in the field. More than 500 Australian wastewater treatment plants recycle at least a portion of their wastewater.

When locating new facilities or expanding outlets, businesses can insist on protection of the storm-water quality through the use of green roofs or by minimizing site disturbance or replacing trees shrubs, groundcovers and natural leaf cover as soon as possible. Minimizing site disturbance helps by reducing runoff, and by holding water near the site

for groundwater recharge. It also provides natural irrigation of crops and plant materials, thereby improving water quality by using the ecosystem services of plants to clean runoff.

Rather than employing an expensive mechanical system of conventional storm sewers, water can be harvested and cleaned through a biological system such as rain gardens, bioswales and green streets. Even agriculture can become more efficient



Workers install a cistern for rainwater capture at a real estate development project in New Mexico.

Dale Horchner/Design Workshop

through computer-controlled irrigation systems.

Operations

Another key part of a company's impact on water is in its operations. A company can lessen its impact by using and recycling water more efficiently within in its own walls — in its own production chain — and in its relationships with supplies and customers.

Regardless of what type of business you're in, change comes by asking the right questions:

- **What strategies are you using to reuse water in your own operations?** This question can be asked for all company operations — from manufacturing, to sales, to distribution outlets. In manufacturing, can you use raw water instead of potable water in industrial processes? How can you make simple changes in each of these areas?

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Checklist: Improving Water Efficiency on Your Company's Physical Grounds

- Are you harvesting freshwater through rooftop systems or using biological systems to clean and harvest freshwater?
- Have you installed low-flow plumbing fixtures and sink faucets that budget the water usage?
- Do the building codes allow the use of gray water systems for flushing of toilets or for landscape irrigation?
- Can you landscape the facilities with native plants or xeric plants that require less water?
- Can you replace potable water with raw water or treated effluent to maintain the landscape?
- Can you use energy-conserving constructed wetlands to treat wastewater instead of mechanical systems?
- Can you inject treated effluent or harvesting water back into the groundwater supply, so as not to lower the water table?
- Does your cooling system use zero-net discharge cooling towers?

More Beer, Less Water at SABMiller A Case Study

BY ANDY WALES, SABMILLER



SABMiller's Mozambique subsidiary, Cervejas de Moçambique, worked with the Foundation for Community Development on two projects in Maputo that help provide clean water for more than 13,000 people.

SABMiller

By 2025, it is predicted that more than 3 billion people will be living in water-scarce areas. For SABMiller, a global brewer, this will include a significant proportion of our customers, employees and communities. The challenge of water availability is being compounded by increased water demand from the growing and increasingly wealthier populations in India, China and other emerging economies, as well as through climate change, as rainfall patterns change around the world.

At SABMiller, a number of our production plants operate in regions that are at risk of long-term water stress (1,000–1,700 m³/capita/annum) or water scarcity (less than 1,000 m³/capita/annum). Because of this, it is vital that we aim to become more water efficient, to understand the watersheds in which we operate and to engage with our suppliers.

In 2007, our water efficiency was 4.56 hectoliters of water to make a hectoliter of beer, one of the best average efficiencies in the global brewing sector, compared to a United Nations Environment Programme industry average of 5 hectoliters of water per hectoliter of beer. However, we are pushing ourselves to go further with active programs in all of our divisions to improve water efficiency. In addition to improving our own operations, we are engaging our suppliers to understand their water use and identify where water use can be improved.

Global Water Governance

As water is becoming scarcer, the way it is managed becomes more and more important. To address these issues, SABMiller is proactively engaging in discussions about water availability, quality and governance at the global, national and municipal levels.

If water resources are to be developed and managed effectively, it is critical that the public and private sectors work together. That is why in July 2007, we became a founding signatory of the CEO Water Mandate. Through this voluntary initiative, companies commit to becoming more water efficient, working with suppliers to improve their water efficiency, entering into dialogue on water issues with local communities and transparently reporting progress on water — all areas that map well against our ongoing water programs.

Local Water Governance

On a smaller scale, the way each and every one of our breweries responds to the need for increased water governance can have beneficial impacts for both the business and local communities. For instance, our business in Botswana, Kgalagadi Breweries, has adopted manufacturing processes to reduce water consumption and has begun raising awareness among employees through its “Save Water – Save Lives” campaign. The business is also working closely with the government, the water provider and other interested stakeholders to understand more about the sources of its water and to develop long-term strategies to safeguard the operation’s (and the local community’s) access to water.

In March 2008, our business in Tanzania, Tanzania Breweries Limited (TBL), and SABMiller convened a water stakeholder meeting to discuss the short-, medium- and long-term water quality and quantity challenges that Dar Es Salaam faces. This local engagement included representatives from a variety of backgrounds, such as leaders at nongovernmental organizations like WWF and WaterAid, and academics from a local university.

SABMiller has also joined with NGOs to benefit local communities in Mozambique, where our local business, Cervejas de Moçambique, worked with the Foundation for Community Development to build a borehole and install elevated water tanks and a solar-powered electronic pump in Maputo. Since the aim of these projects is not only to improve community access to clean water but also to reduce illnesses such as malaria, diarrhea and cholera, these programs included an element of community education on sanitation and the correct use and preservation of water.

Because water scarcity is not limited to developing countries, the U.S.-based Miller Brewing Company also places a

great deal of emphasis on water efficiency. Currently, Miller’s combined ratio of water-to-beer across all locations is approximately 4 hectoliters of water to 1 hectoliter of beer, which is well below the United Nations Environment Programme industry average of 5 hectoliters of water per hectoliter of beer. Miller has also instituted programs aimed at educating and motivating employees to proactively manage water, energy and other environmental resources, which we have seen can lead to significant improvements in performance as well as reduced operating costs.

Innovation to Improve Our Water Awareness

Competition for scarce water resources may lead to tighter water allocations, risk of supply interruptions and declining water quality. It is therefore essential that businesses develop a detailed understanding of the watersheds in which they operate. This helps us understand water availability quality now and in the future, based on projected population changes, farming demands, industrial usage changes and climatic changes.

Using the World Business Council for Sustainable Development water tool, SABMiller has undertaken an analysis of the water-scarcity risks faced by regions where we have brewing facilities. Based on these findings, our sustainable development and group technical teams have built a watershed-mapping tool to enable each of our plants to create a more detailed picture of water resources at a local level.

A Plan for the Future

Internationally, initiatives such as the United Nations CEO Water Mandate ensure that businesses share a common approach and defined objectives. With these in mind, it is equally necessary for businesses to seek local solutions when dealing with water challenges at the regional level. This is especially relevant for the beer and beverage sector, as water is a visible and critical component of both the production process and the final product.

Looking toward the future, water governance and availability will become increasingly important political issues. It is vital that businesses such as SABMiller continue to be at the forefront of innovation as they seek to improve their performance and engage openly with local communities. ■

Andy Wales is the Head of Sustainable Development at SABMiller.

Measuring Your Water Footprint

What's Next in Water Strategy

BY ARJEN Y. HOEKSTRA, UNIVERSITY OF TWENTE

By now, carbon neutrality is such a catchphrase in the world of responsible business, it's impossible to ignore the carbon footprint of a new product or service. But with the exception of a few companies like Coca-Cola, Nestlé and Suez, the concept of water neutrality, or mea-

What is Water Neutrality?

A business is water neutral when every reasonable effort has been undertaken to reduce the company's water footprint and when the firm takes measures to offset or compensate for the adverse social and environmental consequences of its residual water footprint.

suring your water footprint, is still under the radar. It's time to take note: In a landscape where the demand for water is fast outstripping supply, focusing on water neutrality is a key corporate strategy in managing water use and casting your company as a responsible business.

The water footprint of a business is measured by considering two elements: the company's operations and its supply chain. The first measurement looks at the direct freshwater use — the amount of freshwater used within the business itself. The supply chain water footprint refers to the indirect freshwater use — the water used to produce all the goods and services that form the input of the business. A water footprint carries three components: blue, green and gray. The blue water footprint is the volume of freshwater that evaporated from the global blue water resources (surface and groundwater); the green water footprint is the volume of water evaporated from the global green water resources (rainwater stored in the soil); and the

gray water footprint is the volume of polluted water associated with the production of goods and services. The water footprint is a geographically explicit indicator, showing not only volumes of water use and pollution, but also the locations.

Defining Water Neutrality for Business

In business, water neutrality is used as a tool to reduce and offset the social and environmental impacts of a company's water footprint. The idea is to stimulate corporations to make their activity "water neutral" by investing in water-saving technology, water-conservation measures, wastewater treatment and water supply to those who do not have proper water supply. In other words, a water-neutral business reduces and offsets the adverse environmental and social consequences of water use.

In a strict sense, the term "water neutral" is misleading. While it is possible to reduce a company's water footprint through pollution prevention and water reuse, it is generally impossible to bring it down to zero. Some processes like growing crops and washing inherently need water. And because these processes don't necessarily replace the water used, most businesses will always have a residual water footprint. The idea of water neutral is therefore different from carbon neutral, because it is theoretically possible to generate energy without emitting carbon.

Pursuing Water Footprint Reduction and Offsets

In order to be water neutral, a business should meet at least two requirements: First, it must do all that is reasonably possible to reduce its water footprint. This is most urgent in regions where

the impact of the water footprint is high. Second, the company must offset its residual water footprint by making a reasonable investment in establishing or supporting projects that aim to make water use sustainable and equitable.

One of the best ways a business can improve its operational water use is through technology. A business can also use its power to influence its suppliers to reduce their footprint as well. (After all, it's always possible to switch to another supplier that has a lower water footprint.) It's important to note that a business relying on a supply chain that cannot be characterized as "water neutral" is not water neutral itself.

After reviewing what it can do to reduce its operational water footprint, a business has several options for offsetting its residual footprint. For instance, it can invest in the development of its own water project, or it can provide funds to support projects run by others. The size of the investment (the offset or "pay off" price) should be a function of the vulnerability of the region where the (residual) water footprint is located. A water footprint in a water-scarce area or in an area suffering from a period of drought is worse, and thus requires a larger offset effort than an area of a similar size that is not suffering from water scarcity or drought.



Way Forward

Still at its early stages in development, the water neutral concept is subjective. There is no consensus about the level of effort considered "reasonable" in reducing an existing water footprint, and likewise, there's no standard for what can reasonably be expected of a company to offset its residual water footprint.

As we move toward attaining water neutrality in business, some key questions should be addressed:

- **How much reduction of a water footprint can reasonably be expected?** Is this performance achieved by applying so-called better management practices in agriculture, or best available technologies in manufacturing? How does one deal with totally new products or activities?
- **What is an appropriate water offset price?** What type of efforts count as an offset? Ideally, whether projects or payments, efforts should be focused on those specific areas where a water footprint has greatest impact.
- **Over what time span should mitigation activities be spread, and how long should they last?** If the footprint is measured at one period of time, when should the offset become effective?

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BSR's Three-Tier Water Strategy Responding to Company Needs

BY LINDA HWANG, BSR

BSR has been addressing water issues for years as part of existing initiatives with companies that face water-related risk in their supply chains and those operating in water-intensive industries.

In the areas of supply chain management, sustainable land management and community engagement programs, BSR works with companies to develop a holistic approach to managing freshwater resources that incorporates water-related risk into corporate strategy.

Integrating Water Risk for New Strategies in Supply Chains

At BSR, we continue to broaden and deepen our expertise in supply chain strategies with new project work related to water issues. Identifying areas of water use and impact, and characterizing and prioritizing corresponding business risks form the foundation of BSR's supply chain strategies for water. Because supply chain management involves several layers of suppliers, BSR's strategy incorporates the water impact of multiple levels of operations.

This strategy allows us to more clearly see the combined effects of several activities along a company's supply chain and make recommendations for an

integrated approach that balances competing uses for land and water resources. For example, in our work with a large agricultural processor, BSR is recommending land management strategies that incorporate the collective management of water resources at the farm level. This additional layer of data gives the company a more accurate picture of its overall water footprint and the cumulative effects of that footprint on particular regions and communities.

Our supply chain experience reinforces the fact that changes to water resources are felt most acutely at the local level. We draw from our extractives industry practice in designing community engagement programs that address the social and political aspects of water. BSR's approach allows companies to feel more confident that community development programs are strategic both for the company and for the community. We measure success in ways that ensure continuous improvement and accountability for results.

Forward-Looking Research

Because water is so vital to almost every economic sector, BSR also devotes resources to researching longer-term water trends and issues. For instance, our report "At the Crest of the Wave: A Proactive Approach to Corporate Water Strategy" highlights how leading companies can respond to water risk by establishing a water strategy, which includes setting policy goals and targets, and engaging and consulting with key stakeholders for maintaining water resources over time.

Because an increasing number of financial institutions are

BSR's Three-Tier Water Strategy

- Characterize and prioritize water risk in the supply chain.
- Incorporate ecological systems that affect water flows into land management practices and investment decisions.
- Design community development programs that focus on water impacts.



rethinking investment decisions to take environmental

issues into account, BSR has also launched a series of business briefs, “Word from the Street,” to highlight environmental risk from the investor perspective. The brief on water-related risk is co-produced with the water and finance work stream of the United Nations Environment Programme Finance Initiative.

In addition to our reports and business briefs, BSR is leveraging connections in China to understand how new requirements for environmental transparency — including management of wastewater discharge and water withdrawals — will impact companies that rely on suppliers in China. In January 2008, BSR partnered with Peking University’s Center for Water Research to launch the China Water Quality Initiative, which will determine how global apparel and retail brands can help reverse the degradation of water systems in southern China and

ultimately develop industry guidelines for water use.

Eventually, the collection of best practices will be incorporated into curriculum for BSR’s China Training Institute (www.cti-china.org), focusing on the business case for CEOs and practical steps for managers, workers and practitioners.

As more business leaders recognize the need for cross-sector practices in water resources management, an increasing number of firms are beginning to integrate water considerations into core business strategies. BSR will continue to promote both innovative corporate water strategies and equitable collaborative arrangements among various stakeholders for better management of water resources. ■

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BSR Water Resources

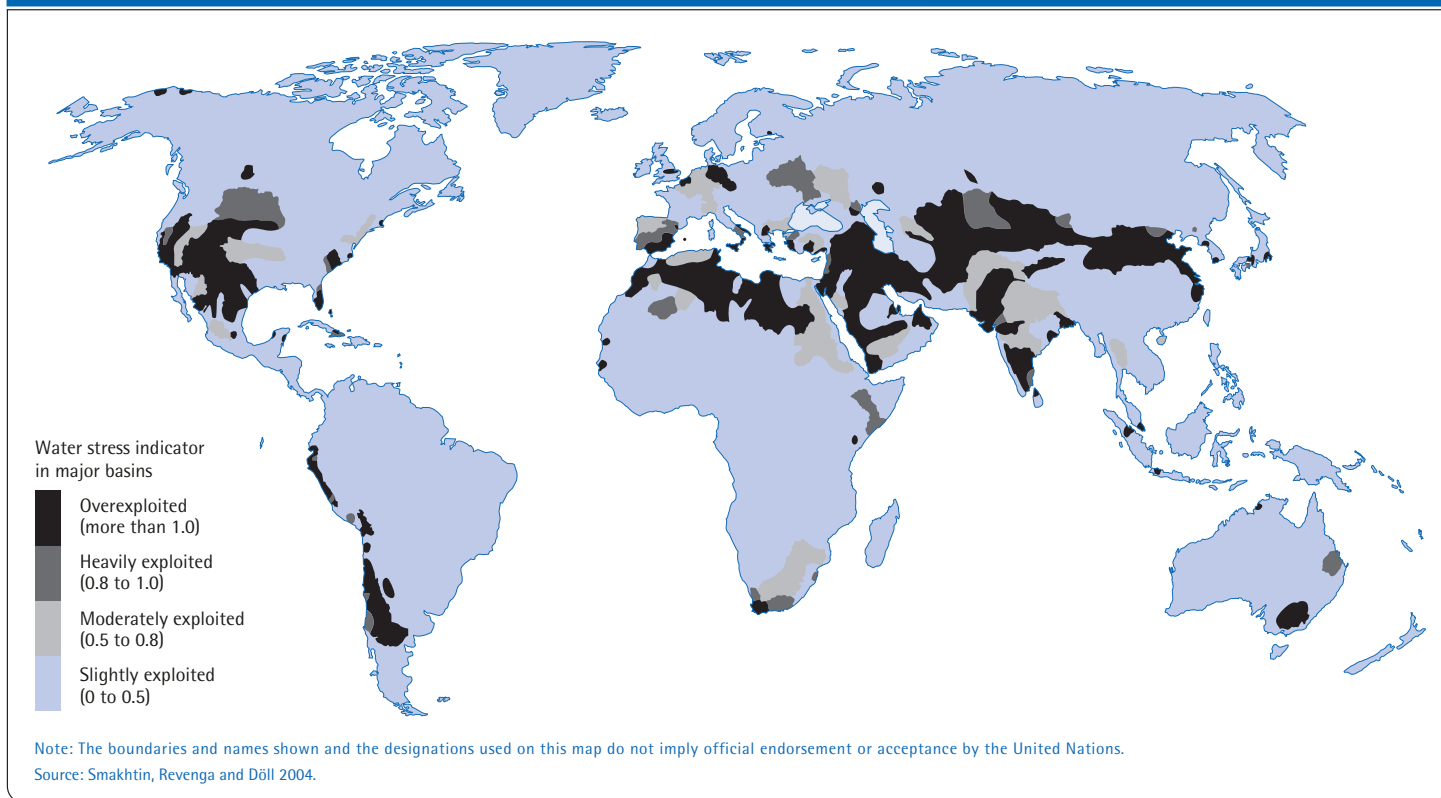
BSR Reports

- “At the Crest of a Wave: A Proactive Approach to Corporate Water Strategy”: www.bsr.org/reports/BSR_Water-Trends.pdf
- “Drinking It In: The Evolution of a Global Water Stewardship Program at The Coca-Cola Company”: www.bsr.org/reports/Coke_Water_Study_March_2008.pdf
- “Water Management in China’s Apparel and Textile Factories”: www.bsr.org/reports/ChinaWater_IssueBrief_042908.pdf
- “Word from the Street: Water”: www.bsr.org/reports/Word_From_The_Street_Water.pdf

BSR Working Groups

- Sustainable Water Group (formerly Apparel Water Quality Working Group): www.bsr.org/sustainable-water
- Environmental Services and Markets Initiative: www.bsr.org/membership/working-groups/BSR_ESMI_2008.pdf

Water Overuse is Damaging the Environment in Many Major Basins



United Nations Development Programme, Human Development Report 2006, Beyond Scarcity: Power, Poverty and the Global Water Crisis. Reproduced with permission of Palgrave Macmillan.

is, as one of the authors in this edition of *Leading Perspectives* points out, a “wicked problem” with nefarious causes requiring multipath solutions.

As this precious resource dwindles, the business case for building a sustainable water strategy is growing. Businesses today face increasing government regulations, a higher level of scrutiny about water use and pollutants from multiple stakeholders, and more pressure to help employees and local communities safeguard access to quality water over the long term. Smart companies have developed water strategies to prepare for the risks and take advantage of the opportunities ahead.

At California-based Intel, a global manufacturer of silicon-based high-tech products, dealing with water scarcity has been a top priority since the early '80s. Over the past 10 years, the company has invested \$100 million on water projects, and CSR operations manager Gary Niekerk estimates that Intel has saved more than 30 billion gallons of water as a result of these programs. In addition to looking at how to clean and reuse water in its internal operations, the company works to understand

community needs in arid regions like the U.S. states of Arizona and New Mexico, as well as dry locations in Israel and China, to determine the best way to reuse water collected from its sites. In Arizona, the water is injected back into the ground to replenish water tables; in New Mexico, it feeds into rivers; and in Israel, it is collected in large ponds and used as irrigation.

Intel has created a system for these solutions to be used at every site, depending on local needs. One such system, the Ultra Pure Reclaimed Water process, which collects clean water to be reused within a facility, is implemented at every new plant Intel builds.

Other companies, such as California-based Levi Strauss & Co. (LS&CO), have extended their water programs to suppliers as well. In 1992, LS&CO created a set of global effluent guidelines to clean and return water from its own laundries to the environment, and by 1995, the company introduced this program to its suppliers. Today, the guidelines are used by LS&CO's 122 laundries in 27 countries. “One of the challenges was initially getting our laundries to invest in the water treatment that's required,” says Michael Kobori, LS&CO's vice president of supply chain,

social and environmental sustainability. “But they understand the value today because in many countries, including China, governments are actively enforcing water standards. So our suppliers are ahead of the game.”

South Africa-based SABMiller, one of the world’s leading brewers, has instituted practices at its breweries not only to conserve water at the company sites but also to raise employee and community awareness about water issues through campaigns like one in water-stressed Botswana called “Save Water – Save Lives.”

There are plenty of measures companies can take to help solve the world’s water crisis, but perhaps the most challenging — and most effective — step will be asking what more your company can do. Looking beyond the risks, what are the possible business opportunities in developing sustainable solutions to the water crisis? As a stakeholder in the communities where you operate, how can you help invest in existing programs or even start a new one to serve the unique water needs of your locality? Intel discovered that in Arizona, only one half of 1 percent of water in the state was used for industrial purposes, so the company decided to look at ways in which it could have a bigger impact on water conservation. “If you really want to help save water, you work on that 80 percent of the pie,” says Intel’s Niekerk. “And we look at how we can do that as a company.”

We have devoted this edition of *Leading Perspectives* to tackling some of the tough questions about and discussing some of the promising solutions for the water crisis, including how you can achieve an effective corporate water strategy. From Patricia Dandonoli’s piece on water as a human right to Arjen Hoekstra’s article about the bold new plan for water neutrality, we hope these stories engage you in a dialogue that you continue with your company, your suppliers, your industry, your customers and your communities. After reading this edition, you may just find yourself asking provocative questions about what’s next for your company when it comes to water solutions. A hundred years into the future, will Intel be known as the water-solutions company, a champion of sustainability that once made microchips? Will LS&CO become more known for its water-treatment expertise than its 501 blues?

These questions aren’t as far-fetched as they seem. Because ultimately it comes back to one simple fact: We’re mostly water. And we can’t live without it. ■

Diane Osgood is Vice President, CSR Strategy, at Business for Social Responsibility.

The Human Right to Safe Drinking Water

continued from page 5

private water supplier, you can affect water accessibility if you own land where people live, particularly land where informal settlements have developed. Private landowners should ensure that those living on their land, whether officially or otherwise, are not denied access to water. In Bangladesh’s capital city Dhaka, slum communities have successfully negotiated with the city water supplier, the Dhaka Water and Sewerage Authority, to grant them water services, despite the community’s lack of legal land tenure. Successes such as this pave the way for more communities living in informal settlements, whether on public or private land, to use the right to water to argue for water accessibility regardless of their rights to the land where they live.

The Future of Responsible Business Water Strategy

Although governments are ultimately accountable for assuring the human right to water, responsible businesses should respect water rights, not only on social justice grounds, but also to avoid legal challenges to their own use of water. After all, while the right to water guarantees access for domestic purposes, there is no right to water for industry or agriculture. Companies implementing good water-management policies are less likely to have their own water access challenged.

Many companies already recognize the importance — to their business goals as well as to surrounding communities — of improving water-resources management to help secure and protect all citizens’ access to water. Initiatives such as the CEO Water Mandate and the World Business Council for Sustainable Development Water Working Group are examples of businesses taking the lead in making commitments to and setting standards for sound water policy.

Companies are also providing support to organizations such as WaterAid, which helps marginalized communities in the world’s poorest countries gain access to safe water and sanitation. WaterAid’s programs have demonstrated that access to water and sanitation leads to improvements in a community’s health, education and livelihoods, and thus is crucial in creating societies in which businesses can thrive. ■

Patricia Dandonoli is President and Chief Executive Officer of WaterAid America, a nonprofit organization that enables the world’s poorest people to gain access to safe water, sanitation and hygiene education. Learn more at www.wateraidamerica.org.

■ **How can you encourage your suppliers to insure that their water demand is reduced?** For example, does your corporate travel policy include a requirement that business travelers use green-certified hotels with low-flow plumbing fixtures and a policy to reuse towels and sheets? Do you select food suppliers who use water-conservation irrigation techniques? Are your suppliers active participants in the Green Suppliers Network (www.greensuppliers.gov) and do they work to reduce their water consumption through lean manufacturing techniques? Do you select suppliers who are ISO 14001 certified (www.iso.org) or who are EHS compliant (www.ehscompliance.org)? These certifications ensure that your suppliers are knowledgeable about sustainable practices and offer proven experience.

Power of Influence

Regardless of size, companies can take an active role in encouraging employees, suppliers, customers, governments and even competitors to make better choices about water use and water-management systems.

By offering “brown bag” lunch discussions or making informational material available, you have the ability to influence choices employees make at home about such things as xeriscape lawns, low-flow plumbing fixtures, and water-conservation techniques in flushing, laundering and dish washing.

By educating people about the company’s own efforts toward

water sustainability, companies can also influence customers, supplies and competitors, who may be losing customers due to less-efficient water practices.

With encouragement from business, governments may start to consider alternative solutions such as “purple pipe” water-reuse systems for landscape irrigation, or progressive water rates. Business can also support higher-density development that conserves water by reducing the landscape area per housing unit.

The economic power wielded by large companies gives them the ability to “just say no” to building or doing business with suppliers or governments at the community, city or country level that haven’t made or won’t make positive changes. As leaders, businesses can encourage sound land-use policies, landscape restrictions that require low water usage, and water-usage policies and pricing that make it cost-effective for people to conserve. Unlike oil, for which alternative energy is available, there is no substitute for water, and with these simple strategies, you can help ensure the world’s water supply for future generations — an aim that is indeed worthy of a Nobel prize. ■

Kurt Culbertson is the Chairman of Design Workshop, a Colorado-based landscape architecture and land-planning firm. In addition to his leadership role in redefining land-use trends in the western United States, Culbertson has initiated the creation of a “sustainable development” community that promotes stability between both the physical and social systems. For more information, visit www.designworkshop.com.

Business Resources for Water Conservation

- **U.S. Green Building Council (www.usgbc.org):** Offers a wide variety of information on green building techniques, including water-conservation technologies.
- **Green Suppliers Network (www.greensuppliers.gov):** Provides sources of suppliers of water-conserving and other environmentally friendly products in the United States.
- **Arab Environment Watch (www.arabenvironment.net):** Offers case studies and water-conservation techniques for the countries of the Middle East.
- **Asia-Pacific Water Forum (www.apfw2.org):** Offers excellent information for water users in the Asia-Pacific region.
- **African Civil Society Network on Water (www.freshwateraction.net/aneu):** Offers resource materials and links to various organizations on the continent focused on water-conservation and quality issues.
- **Freshwater Action Network (www.freshwateraction.net):** Provides links to a variety of organizations around the world that are working for water conservation.

Measuring Your Water Footprint *continued from page 13*

■ **What are the spatial constraints?** When a water footprint impacts a specific place, should the offset activity cover the same place, or may it cover an area within a certain reasonable distance from the footprint zone of impact?

As we answer these questions and others, accounting systems need to be developed that prevent double offsetting. For example, if a business can offset its supply chain water footprint even as the business in the supply chain offsets its own operational water footprint, how do these companies share offsets? Likewise, when offsets are achieved in projects that are joint efforts, how much of any calculated water benefits can an individual entity claim?

Despite the possible pitfalls and unanswered questions, the

water neutral concept offers a useful tool to bring stakeholders in water management together to discuss water footprint reduction targets and mechanisms to offset the environmental and social impacts of residual water footprints. The concept will be most beneficial in contributing to wise management of the globe's water resources once clear definitions and guidelines are developed and agreed upon. ■

Arjen Y. Hoekstra is Professor in Multidisciplinary Water Management at the University of Twente in the Netherlands. He is also the author of Globalization of Water (Blackwell 2008) and co-author of a recent publication on "Business Water Footprint Accounting." For more information, please visit www.waterfootprint.org.

Clean CARGO

Sustainable
Transportation

BSR's Clean Cargo Working Group Assesses the Environmental Footprint of Goods Transported Globally

The Clean Cargo Working Group (CCWG) is dedicated to benefiting the environment and people by assessing and addressing the environmental footprint of goods transported globally.

By joining the CCWG, your company can benefit from:

- **Increased Trust:** By addressing environmental and social challenges, shippers and carriers build mutual trust.
- **Enhanced Brand Recognition:** A company's ability to attract customers and investors is becoming increasingly dependent on its environmental and social performance.
- **Increased Efficiency:** Multi-industry partnerships enable shippers and carriers to develop solutions that increase efficiency and overall corporate performance.
- **Improved Stakeholder Relations:** Proactive engagement in environmental performance issues improves a company's position when negotiating with industry and non-industry stakeholders.

Clean Cargo Working Group tools, such as the Environmental Performance Survey, enhance communications, raise awareness and enable better management standards.



For more information, visit www.bsr.org/cleancargo or contact:

Raj Sapru at rsapru@bsr.org, or call +1 415 984 3200.

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