



Water Scarcity: How Companies Are Making a Change

By Emilye Pelow and Zachary Paris

Background

Since the enactment of various economic reforms and the subsequent emergence of the BRIC (Brazil, Russia, India, China) economies in the 1990s, the global economy has experienced unprecedented levels of growth and development. While such development has enabled millions of people to improve their quality of life, it has put considerable strain on the world's natural resources, particularly water. Fertility rates above the 2.5 to 3.3 replacement rate for developing countries,¹ coupled with improvements in health care and a growing world population—currently about 6.7 billion people²—further the strain on both renewable and nonrenewable natural resources.

Water, a natural resource fundamental to human survival, is a renewable resource, but water which is suitable for consumption is finite in its availability. Nestle's chairman Peter Brabeck-Letmathe put it more bluntly, calling water availability a bigger challenge than energy security. "I am convinced that, under present conditions and with the way water is being managed, we will run out of water long before we run out of fuel."³ The provision of potable water is the responsibility of world governments and therefore a public policy issue meant to be addressed in the political arena. Responsible use of water by corporations, so as not to exacerbate an already serious problem, is an issue which sustainable investors can address with considerable influence.

Water Scarcity

Less than 1% of the water on earth is fresh water, used for human consumption, environmental and industrial needs. 97.5% of the earth's water is saltwater and therefore not suited for human use; the remaining 1.5% is found in glaciers and is not useable. As populations grow and communities become more developed, the demand for water increases. "More than one-third of the world's population, roughly 2.4 billion people, live in water-stressed countries and by 2025 the number is expected to rise to two-thirds."⁴ For much of the developed world, water scarcity is a latent threat.

Recognizing and mitigating the threat of water scarcity is necessary to sustain future generations. For the global industries, it is also the most responsible and ultimately most cost efficient means of conducting business. There is no logical economic argument for the irresponsible use of a resource for which one must pay, regardless of how cheap the resource may be. The supply of fresh water will continue to decrease, due to consumption as well as pollution, contamination, and harvesting ground water beyond its natural rate. As prices increase companies will be forced to use water more responsibly over time. In addition, corporations have a responsibility to both their shareholders and the communities in which they operate and must take action now to adopt responsible behavior. The first step to change is to recognize the problem.

Industry Leaders

The beverage and semi-conductor industries are often identified as primary culprits in the profligate use of water; however, three companies, Nestle, PepsiCo and International Business Machines (IBM) are recognized leaders that have introduced policies aimed at water usage and managing wastewater. These companies are keenly aware that a diminishing water supply will directly harm corporate profits.

In March 2009, beverage industry leader PepsiCo incorporated a “human right to water” policy detailing the availability of clean water and the community extraction rights to water.⁵ Nestle produces a water management report focusing on consumers, agriculture, communities, and the future of water management. From 2002-2006, Nestle reduced its water consumption by 34.6%.

Although improvements have been integrated into parts of their supply chain, Nestle and PepsiCo still face public opposition worldwide. For example, Nestle and PepsiCo bottlers lost their operating licenses in parts of India due to water shortages,⁶ a pattern that will become increasingly common as the frequency of such shortages increases. While the beverage industry is entirely dependent upon the availability of a quality water supply to manufacture its products, it consumes far less water than the semi-conductor industry.

Semi-conductor manufacturers require vast amounts of clean water, thereby exacerbating the water scarcity issue. IBM, a key player in the semi-conductor industry, is a leader in innovative water management techniques. In 2008, IBM introduced a comprehensive environmental program called “A Smarter Planet.” A significant portion of the program is dedicated to water management practices, including tracking production inefficiencies, sensor monitoring which enhances the understanding of how water flows throughout the production cycle, and advancements in desalination techniques.⁷

Many of these practices provide better options for the future of water-intensive industries. Requiring these industries to be more efficient and track consumption and wastewater discharge will be essential in sustaining business and curbing the water scarcity problem.

Room For Improvement

Nearly all industries, from beverages to silicon chip makers, rely heavily on water to conduct business; however, few of these industries have entered even the nascent stages of sustainable development through the implementation of effective Environmental Management Systems (EMSs). As Dr. Peter Gleick, president and co-founder of the Pacific Institute,⁸ has stated, “you can’t manage what you don’t measure.”⁹ Implementation of EMSs, which require a continuous

cycle of adaptive planning and reviewing of procedures, is imperative to obtaining sustainable growth for all industries.

Real change requires commitment and action. Dr. Pepper Snapple Group is a large bottler and distributor of beverages, and uses a great deal of water to produce its products. The company vaguely addresses the importance of conserving water. There are no policies or benchmarks in place to reduce consumption, use reclaimed water or to introduce alternative operational methods.

Intel publishes a Corporate Responsibility Report and recognizes the challenges that are associated with water scarcity. However, they lag behind IBM and other companies in providing detailed policies for reductions of water consumption. Intel's business is water-intensive. Intel will need to address the issue of water scarcity, in order to be competitive and profitable in the future. For many companies, growing freshwater scarcity coupled with the increased demand for clean water should make water conservation not just part of a responsible corporate environmental policy, but a key risk management strategy as well.

Making a Difference

The Pacific Institute provides numerous ideas for improving a company's water footprint. This includes measuring the impact of water in a company supply chain, evaluating water usage, and risk as well as disclosing water performance and risks associated with water as a main source of revenue.

Another important step in improving water accountability is to develop a corporate water plan. Such a plan would allow management, executives, and the board of directors to be involved in water conservation and would encourage flexible and adaptive discourse on water-related issues. Incorporating water management in a company business plan shows investors the company is serious about committing to both the issue and the implementation of applicable advancements.

Innovative ideas and improvements happen when leadership believes in the change and often it is investors who, through the market, encourage such beliefs. The California Public Employees' Retirement System (CalPERS) provides retirement and health benefits to 1.6 million people and is the largest pension fund in the United States, with \$181 billion in assets under management.¹⁰ CalPERS also is a leader in investment strategy and shareholder activism. In 2009, CalPERS committed \$200 million to seven investment partners, including companies seeking to manufacture technology in the renewable energy, water remediation, and air quality arenas.¹¹ Institutional investors focusing on environmental initiatives can be the bridge to changing company policies.

Providing transparent information for shareholders and public audiences creates greater accountability. Setting standards with consistent measurements allows

companies to improve their efficiency and become industry leaders, qualities that have a positive relationship to profitability.

Sentinel's View

At Sentinel, we focus on investing in companies that provide sustainable business models and we encourage companies to include detailed water information in environmental policies and strategic business plans. When investing with companies, thoughtful water disclosure and transparent water policies are essential. Greater transparency allows investors to thoroughly understand company policies and to better assess risk. As investors, we will continue to engage with and encourage companies to improve water awareness.

How can you save and conserve?

Preserving water resources from overuse and pollution can only be accomplished if all members of society are engaged in water conservation. "Americans use, on average, 13 million gallons of water every minute — 14 times faster than the natural rate of replenishment."¹² Here are some helpful ways you can save money and conserve water.

- Fix leaky faucets, install low-flow aerators. Low-flow aerators can reduce your water consumption and energy costs by 50%.¹³
- Invest in a 1.6 gallon low-flow toilet and consume 50% less water. Look for the WaterSense label to choose quality, water-efficient products. WaterSense is a partnership program sponsored by the U.S. Environmental Protection Agency.¹⁴
- Turn off the water when brushing your teeth. You can save gallons of water daily.

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