

Report Warns Businesses and Investors about Growing Water Scarcity Impacts from Climate Change

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BOSTON, Feb. 26, 2009 - Global climate change is exacerbating water scarcity problems around the world, yet few businesses and investors are paying attention to this growing financial threat, according to a report issued today by Ceres and the Pacific Institute.

Water is crucial for the global economy - driving every industry from agriculture to electric power to silicon chip manufacturing. Beverage, apparel and tourism also rely on supplies of clean, potable water to survive and grow.

Decreasing water availability, declining water quality, and growing water demand are creating immense challenges to businesses and investors who have historically taken clean, reliable and inexpensive water for granted. These trends are causing decreases in companies' water allotments for manufacturing, shifts towards full-cost water pricing, more stringent water quality regulations and increased public scrutiny of corporate water practices.

The report concludes that climate change will exacerbate these growing water risks - especially as the world population grows by 50 million people every year. Already, China, India and the western U.S. are seeing growth limited by reduced water supplies from shrinking glaciers and melting snowcaps that sustain key rivers. Meanwhile, agricultural and power plant production have been cut back due to more frequent and more intense heat waves and droughts in large parts of Australia, California and the southeast U.S.

"The business community needs to wake up to the reality that water is becoming scarcer and will likely become even more so in many parts of the world due to climate change," said Mindy S. Lubber, president of Ceres, which published the report, *Water Scarcity & Climate Change: Growing Risks for Businesses and Investors*. "It is critical that companies and investors boost their attention on this issue."

"This research sheds important light on the critical link between climate change and water issues. For businesses, addressing the risk factors of water scarcity and conflict is as urgent as addressing energy security and greenhouse gas emissions," said Jason Morrison, program director at the Pacific Institute and the report's lead author. "With impacts of climate change on water resources already affecting businesses, this report provides a first-of-its-kind list of key questions companies and investors should be asking - and responding to - in an integrated way."

The report identifies water-related risks specific to eight key industries, including:

* Electric Power: Drought-induced water shortages have already caused power plant shutdowns in Europe, Brazil and the southeast U.S. that led to price spikes and reduced economic growth. The power industry depends heavily on water and accounts for a staggering 39 percent of freshwater withdrawals in the U.S.

* High-Tech: Eleven of the world's 14 largest semiconductor factories are in the Asia-Pacific region, where water scarcity risks are especially severe. IT firms require vast amounts of ultra clean water - Intel and Texas Instruments alone used 11 billion gallons to make silicon chips in 2007. A water-related shutdown at a fabrication facility operated by these firms could result in \$100-\$200 million in missed revenue during a quarter, or \$0.02 or \$0.04 per share.

* Beverage: Coca-Cola and PepsiCo bottlers lost their operating licenses in parts of India due to water shortages and all major beverage firms are facing stiff public opposition to new bottling plants - and to buying bottled drinking water altogether. Nestle Waters has been fighting for five years, for example, to build the country's largest bottling plant in McCloud, CA.

* Agriculture: Reduced water availability is already impacting food commodity prices, as shown by last year's sharp increase in global rice prices triggered by a drought-induced collapse of rice production in Australia. Roughly 70 percent of the water used globally is for agriculture, with as much as 90 percent in developing countries where populations are growing fastest.

The report also identified specific water-related risks for apparel, biotechnology/pharmaceutical, forest products and metals/mining firms.

"This report makes clear that companies and investors can no longer take water for granted," said Anne Stausboll, chief executive officer of the California Public Employees' Retirement System, the nation's largest public pension fund with approximately \$170 billion in assets. "As a global investor, we must be mindful of water-related risks in many parts of the world and how climate change will likely exacerbate many of those risks. Disclosure by companies is an important first step in improving transparency around the risks and opportunities associated with water and climate change."

The report also highlights the intensifying conflict between energy use and water availability. With increasing frequency, choosing one of these resources means undermining the other - the other usually being water. For example, the billions of dollars spent to expand corn-based ethanol production in the U.S. and oil sands development in Canada has helped ensure increased fuel supplies, but at the expense of significant water impacts and greenhouse gas emissions that could ultimately limit these ventures in the future.

Despite these looming challenges, the report concludes that businesses and investors are largely unaware of water-related risks or how climate change will likely exacerbate them.

Weak corporate disclosure on potential risk exposure and response strategies is especially glaring.

To evaluate and effectively address water risks, companies should take the following actions:

- * Measure the company's water footprint (i.e., water use and wastewater discharge) throughout its entire value chain, including suppliers and product use.
- * Assess physical, regulatory and reputational risks associated with its water footprint, and seek to align the evaluation with the company's energy and climate risk assessments.
- * Engage key stakeholders (e.g., local communities, non-governmental organizations, government bodies, suppliers, and employees) as a part of water risk assessment, long-term planning and implementation activities.
- * Integrate water issues into strategic business planning and governance structures.
- * Disclose and communicate water performance and associated risks.

Similarly, investors should pursue the following steps to better understand potential water-related exposure in their portfolio companies:

- * Independently assess companies' water risk exposure.
- * Demand more meaningful corporate water disclosure.
- * Encourage companies to incorporate water issues into their climate change strategies.
- * Emphasize the business opportunity side of the water challenge.