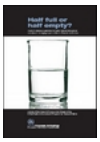

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Word from the Street: Water

Around the world, water is vital to almost every sector in the economy. It represents a growing market on its own and serves as an input to nearly every industry. Because of this, an increase in the price of water driven by scarcity or quality problems will affect almost all of society's commercial activities. Financial institutions are beginning to rethink their investment decisions as water fundamentals shift for many sectors of the economy. They are also being urged to ask new questions as part of their general risk-assessment process to determine water performance differences among firms operating within sectors. Increasingly, the capacity of a business to respond to water risk is an indicator of overall business resilience. Fortunately, companies can proactively prepare for the new layer of risk related to water supply uncertainty and declining water quality.

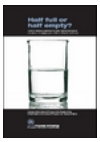
This brief includes a set of guidelines, described in the Water & Finance Workstream of the United Nations Environment Programme (UNEP) Finance Initiative publication "Half Full or Half Empty?", which companies can use to evaluate their level of risk exposure to water constraints in order to respond to the growing community of investors and financiers who are including water criteria in their investment decisions.

Risk and Benefits

Failing to take water issues into consideration as part of overall business strategy and operations management yields four broad categories of risk, summarized in the table below.

Risks
Operational: Reduced availability of water input, higher costs of input, disruption to business operations due to the lack of inputs. In 2006, the Basslink project, an undersea cable connecting Tasmania to the Australian national energy grid, was promoted as being able to supply cheap, clean power for the mainland from Tasmania's hydroelectric generation capacities. However, water shortages in 2006-2007 forced Hydro Tasmania to import electricity at a cost of about AU$16 million, driving down the company's profitability.[i]
Regulatory/Legal: New government regulations, user fees, penalties, lawsuits, restrictions on expansion of operations, higher transaction costs. In 2005, the Shaoguan Smelting Plant in Yingde City, China, released large quantities of cadmium into the Beijiang River, raising cadmium levels to 10 times the amount considered safe. Authorities shut down this smelting plant and 14 others in order to assess the risk of future spills. Investors in the parent company, Zhongjin Lingnan Nonferrous Metals, which is listed on China's Shenzhen Stock Exchange, lost out when share-trading was frozen and shares reopened at a lower price.[ii]
Reputation: Damage to brand and reputation, challenges to "license to operate." Shell suffered reputational damage following several environmental issues, including groundwater contamination at the Rocky Mountain Arsenal in Colorado, where the company was accused of being an intentional polluter. In recent years, the company has repaired much of that damage by identifying its key environmental and social impacts, and consulting its stakeholders about their primary concerns. As a result, Shell is now featured in many corporate social responsibility surveys and indices.[iii]
Market: Changes in customer preference. One of The Coca-Cola Company's bottling plants at Mehdigang is charged with allegedly overexploiting groundwater and polluting it with toxic heavy metals such as lead, cadmium and chromium in the areas surrounding the company's plants in India. People in more than 20 villages in northern India organized against the company in the town of Mehdiganj, where citizens are calling for the government to shut down the company's bottling plant. People all over the world joined in protests against The Coca-Cola Company due to these allegations.[iv]

Source: see References



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Additionally, the benefits of accounting for water issues as part of overall corporate risk assessments include:

- Positive brand association through enhanced reputation
- Increased cost savings through more water-efficient processes
- Less likelihood of regulation/litigation through reduced regulatory hurdles and more efficient time to market
- Increased production consistency through reduced vulnerability to water scarcity issues

Water Concerns Informing Investment Decisions

Water issues represent a growing area of consideration for financial firms making investment decisions, and companies can use emerging frameworks and guidelines to understand the criteria the finance community uses for such evaluations. The list below summarizes the major evaluation criteria from the UNEP FI Practitioner's Checklist:[v]

Water as an Input

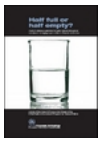
- Assess the importance of water as an input in the production process.
- Assess the security of a facility's water supply, including major water sources and any competing uses for those sources.
- Take steps to mitigate negative impacts on communities.
- Apply long-term water resource forecasts that take into account climate change and increasing water consumption, and develop an adaptation strategy if water supply is permanently restricted.
- Build extra capacity into facilities to cope with potential restrictions in water availability or variable water quality.
- Determine risk assessment for flooding and take related precautionary measures.

Water Efficiency

- Develop a water-management plan that considers the use of water at all stages in the production process.
- Calculate water footprint of owned operations and facilities, including breakdown of water use by purpose.

Impact on the Water Environment

- Report short- and long-term impacts of water use and wastewater discharge by facility.
- Monitor the impacts of facilities on the water environment over time, and revise strategy on the basis of the monitoring data.
- Determine hazardous materials transportation and storage to avoid contamination of water sources.
- Determine groundwater contamination risks due to management of solid waste on the site.
- Develop an accident-management plan for risks to human health and ecology from a spill or accidental discharge.
- Develop plan for decommissioning of facilities and site rehabilitation.
- Determine whether proposed or existing activity is appropriate to local water resources.
- Consider proactive steps to restore or improve the local water environment.



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Regulation and Interaction with Government

- Establish statutory rights to access water.
- Assess the company's liability if environmental standards are breeched, in particular as it relates to contamination of drinking water sources.
- Secure all necessary licenses for wastewater discharge.

As the risks to profits and market share associated with water concerns become quantifiable, financial institutions will increasingly include these criteria in their mainstream analysis. Proactive companies have an opportunity to make strategic choices about how they will manage their water inputs, thereby maintaining their competitiveness in an increasingly transparent but resource-constrained global marketplace.

For more information on BSR's work with companies, NGOs and investment advisers on water-related risk, please contact BSR Environmental Research & Development Manager Linda Hwang at lhwang@bsr.org or +1 415 984 3278.

For more information on the UNEP Finance Initiative's work with financial intermediaries and capital market actors on the entire spectrum of relevant water issues, please contact UNEP Finance Initiative Water & Finance Manager Remco Fischer at remco.fischer@unep.ch or +41 22 917 8685.

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[iii] Sustainable Construction Task Group. 2000. "Reputation, Risk, and Reward: A Business Case for Sustainability in the UK Property Sector." Available at http://projects.bre.co.uk/rrr/RRR.pdf.

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