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WATER IN INDIA

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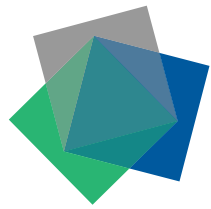
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RESPONSIBLE RESEARCH

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Responsible Research is an independent provider of sectoral and thematic Asian environment, social and governance (ESG) research, targeted at global institutional investors. Many of these fund managers and asset owners now find that traditional investment banking reports, financial models and public information sources can no longer be relied on to cover all risks to earnings and deliver superior returns. Companies who do not monitor and report on this 'non-financial' performance not only risk financial penalties for non-compliance with stricter regulatory environments but are also denied access to substantial pools of global capital which are managed according to sustainable principles.

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EXECUTIVE SUMMARY

India is a land of extreme contrasts. In Mumbai, where half of the estimated 18 million population live in slums with no running water, the Ambani family, promoters of Reliance Industries unveiled in 2010 the most expensive private residence ever built, with a reported cost of US\$1bn. The residence has been designed with four storey gardens, swimming pools, Versailles styled bathrooms and helipads.

India, with 16 percent of the world's population, has only 4 percent of the world's available fresh water resources.¹ As a net exporter of water due to its successful agribusiness and with increasing water scarcity there is a need to pursue more economic uses of water resources. The health of India's water resources and infrastructure will influence the trajectory and sustainability of India's growth.

Economic growth and rising urbanisation are driving increased per capita water consumption in towns and cities and increased water usage across all sectors. Yet, there is hardly a city in India which gets 24 hours supply of drinking water. At the same time, as water consumption rises, so does wastewater production. Less than 65 percent of domestic urban wastewater is treated, with the remainder being discharged directly into rivers and the sea. Untreated or inadequately treated industrial effluents pollute water bodies and groundwater. In the absence of proper measures for treatment and management, India's remaining freshwater reserves are being polluted.

In response to inadequate, polluted or expensive supplies of surface water, the population has turned to the use of groundwater. The annual extraction of groundwater in India² is by far the highest in the world and unsustainable over-extraction in certain areas, has lowered the water table to dangerous levels. In some areas the depleted groundwater resources bring problems of salt-water infiltration and contamination by arsenic, fluoride and iron that can occur naturally in the ground. As the government continues its vote winning policies of power subsidies for the agricultural sector, farmers sink ever-deeper boreholes to meet the increasing demand for food from the rising population.

Recharge of these valuable water resources is impacted by the looming presence of climate change. Although the rate of recession of the Himalayan glaciers has been the topic of heated debate in recent months, the IPCC has reaffirmed its statement³ that "Climate change is expected to exacerbate current stresses on water resources.... Widespread mass losses from glaciers and reductions in snow cover over recent decades are projected to accelerate throughout the 21st century, reducing water availability, hydropower potential, and changing seasonality of flows in regions

supplied by melt-water from major mountain ranges (such as the Hindu-Kush, the Himalayas and the Andes), where more than one-sixth of the world's population currently lives."

Within the Indian Government the management of water resources suffers from fragmentation of responsibility at both central and state levels. Strong central policies are undermined by a lack of enforcement at state level. Though the problems of water resource and security are mainly internal, many of the major rivers of India originated in the Himalayas and are an important source of water to other countries in the region. Relations between India and China and their neighbours may become strained over shared water resources, especially if China intensifies its strategy of diversion of water from the Brahmaputra, as reports suggest. The ongoing impact of this may cause a significant increase in number of immigrants and economic refugees from Bangladesh to India, causing additional strain between these two nations.

The water risks posed to industries in India are real and serious. Forecasts indicate that all the sectors covered in this report are enjoying healthy growth. However, the chances are that this growth will be dampened by the realisation of water risks that most of these sectors are increasingly facing. Across each of these sectors, we already find instances where the operations of individual companies have been impaired, to varying extents, by water issues related to access to sufficient quantities of water of suitable quality or stakeholder, mostly regulator or community, reprisals related to water pollution.

Disclosure on water usage and impacts is commonly immaterial and incommensurate with the risk. Among the sectors reviewed, the level of disclosure on water ranged from non-existent to fleeting and feeble references to philanthropic community drinking water and sanitation initiatives, installation of rainwater harvesting systems within and outside premises, other water conservation initiatives within operations and in some rare cases quantified water withdrawal, consumption and discharge. We found few instances where companies mentioned that water was viewed as a business risk. The level of disclosure betrays the fact that water is still rarely viewed as an important element of business strategy and that it is clearly an insignificant blip on corporate radars.

Some sectors report better than others, but the difference is marginal. While there were corporate exceptions in each sector, banking, beverage, real estate and textiles were characterised by very weak water disclosure. The power sector performed slightly better, with two companies identifying water as a business risk. While it is known for its significant basin level impacts on water



availability and water body contamination, the mining sector performed only marginally better than the rest. While most public sector mining companies (including some metals companies with captive mines) disclosed little on water, the sector had a higher incidence of disclosure of more relevant and quantified water data in comparison with other sectors.

Disclosures on water as opposed to energy and CO₂ require greater context. In recent years, ESG disclosure in India has become more prevalent. A higher number of companies have become more proficient at disclosing energy and GHG emissions. Water, unlike energy and GHG emissions, is more contextualised by local conditions and stakeholder considerations. Among the handful of Indian companies that disclose metrics related to water withdrawal, consumption, recycling and discharge, the information often tends to mimic their disclosures on energy/CO₂. The fact that the impact of withdrawal of water is related to the timing of withdrawal, the type and health of the source, competing usage and its long-term viability, among other parameters, is completely overlooked by these reporters.

Disclosure on risks related to the supply chain is missing. A business is only as sustainable as its value chain. Even if the risks directly posed by water to a business may be insignificant, the manifestation of water risk along its value chain can be equally detrimental to its prospects. It was unsurprising that companies did not provide any information on supply chain related water risks.

The fact that some of the best reporters on water – Sesa Goa (mining), HCC (construction and real estate – related to its subsidiary, Lavasa) and PepsiCo India (beverage) also found themselves mired in publicised water-related controversies with local communities, NGO activists and regulators was remarkable. However, it should be noted that these controversies were not a result of the companies' disclosure and other organisations should not be discouraged from their own disclosure plans.

Lack of disclosure on water impacts brings down the ASR™ scores of Indian companies. An analysis of the ASR performance of Indian companies revealed that the 56 Indian companies, on average, scored only 29 percent across ASR water criteria. 21 of the 56 companies analysed disclosed no relevant water information at all. The banking and financial services along with the real estate sector exhibited the weakest water disclosure.

Water ought to be a matter of investor concern in India. India's rapid growth and untapped potential naturally attracts investor interest. Those interested in investing in India would do well to evaluate water risks of their portfolio. While it is likely to be common

that potential investee companies will not view water as an integral component of business strategy, investors would do well to assess water risks in investment decisions and thereby derive comparative advantage.

Stakeholder engagement can inform a water conscious investor strategy. Investors may customise and adopt the four broad steps of: assessing a company's water profile; mapping water risks; estimation of impacts on investment returns; and investment decision-making. The probability and severity of the realisation of these risks is closely tied in with stakeholder perceptions and responses. Moreover, since significant components of water related information in India is not easily available/accessible, anecdotal information from key stakeholders can be useful in assessing water risk.

Investing in water in India involves high stakes – the opportunity is large, but the risk is significant. The Indian government is ardently promoting investments in the water sector. The budgetary allocation for irrigation as well as water and sanitation infrastructure is increasing and stood at US\$ 99 billion for the 2007-12 period. The performance of the private sector in these two areas has been mixed. Infrastructure and construction companies have benefitted from the vast budgetary allocations to irrigation infrastructure. However, private sector participation in India's ailing water utilities sector has been tepid. The Public Private Partnership (PPP) model has met with limited success and been commonly dogged by fundamental socio-economic issues of water rights and a general unwillingness to pay higher water tariffs. Operation and Maintenance (O&M) and provision of technology are likely to be the primary areas where private sector participation will be prominent in the water utilities sector in the near term. For increased and more widespread private sector participation across utilities, the market needs greater maturity aided by the confidence and trust that a few water utility PPP success stories can bring.

Indian public and private water companies have begun to attract investor interest. The Indian market already has a number of domestic public and private companies that operate various elements along the water value chain. Some of the larger companies are often providers or constructors of water infrastructure. Asset managers as well as Private Equity (PE) and Venture Capital (VC) investors have begun to take positions in the sector.

Politics of water and agriculture across Indian states are worth tracking. Agriculture is by far the most significant water user in India and also holds the potential for the most impactful and economically efficient reductions in water use. The current state



of vote-bank politics discourages this. However, some states have initiated progressive measures in this regard. The importance of progress on this single issue of allocation of free or highly subsidised power to agriculture as well as other water related issues that are determined at the state level must not be lost on investors. India is not a monolith. While the health of its water systems is generally poor across the country, prudent action on the part of some states can result in significantly differentiated water risks across them. Long-term investors would do well to inform themselves of how this relative progress across the states impacts their portfolios.

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