

accenture

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Water Stewardship & Industries

March 5, 2013

Mumbai







Domestic

97 million without drinking water;
814 million without sanitation
80% urban sewage untreated
Demand to grow by 40% by 2025



Ecology

- No allocation for ecology
- Threatened habitats, declining aquatic biodiversity
- Dolphins, gharials, and many indicator species endangered

Agriculture





- Largest water consumer; highest water footprint
- Demand to grow by 10% ~
 675 cubic km by 2025

Industry



- Sector with highest demand growth
- Expected demand to be
 ~ 92 cubic km by 2025







By 2030, **demand** will be **50% more** than supply **Highest groundwater** user in the world 120th among the 122 nations in terms of water quality







Industry sectors considered and rationale



- 75% of India's capacity addition in 12th Plan from coal based plants;
 - Water demand to increase by 4-30 times (2010-2050)

Pulp &

Paper

- Consumes 5 times more water than the global best;
- 85% water from surface sources;
- 40% mills are accused of polluting water sources



- Employs 35 million; 17% foreign Exchange;
- Exports 25 billion cubic meters as virtual water through cotton textiles;
- Almost 50% of pesticides used in the cotton





Industry sectors considered and rationale



- While 95% water can be recycled, as much as 85% of water is discharged as effluents;
- Water demand to rise by 350%

Sugar

- 50 million people; 9 states;
- 72% inherent water in sugar cane not harnessed;
- Sugar mills guzzles water; India accounts for 22% global production



- Water usage ratio lower than global best
- Increased brand value risk due to high water footprint across its supply chain 6





	Physical Risk	Regulatory Risk	Reputation Risk
Basin related risk: Linked to the location of the company	Water quantity (scarcity, flooding, droughts) and quality (pollution) within the river basin and the impacts this might have on society and the environment	Strength and enforcement of water regulations and the consequences of restrictions by public institutions. Either felt through direct regulatory action or from neglect, blockages or failure	Perceptions around water use, pollution and behaviour that may have negative impacts on the company brand and influence purchasing decisions. Public perceptions can emerge rapidly when local aquatic systems and community access to water are affected
Company related risk: Linked to the behaviour of the company	Water quantity and quality issues related to the performance of the company and its supply chain	The potential for changes in pricing, supply, rights, standards and license to operate for a particular company or sector	When the actions of the company are poorly executed, understood or communicated with local stakeholders and where perceptions and brand suffer as a consequence





Physical/disruption - through scarcity, poor quality and infrastructure neglect

Brewery: Jan 2013, drought led to closure of brewery in Aurangabad and distilleries in Marathwada

Refinery: In April 2012, a refinery in Karnataka shut two of its units down for 45 days

Thermal plants: 2010 & 2012 water scarcity forced closure of plants







Water risks: regulatory



Regulatory - change in the rules of the game, less coherence/consistency

Central Ground Water Authority

November 2012 norms on siting and water abstraction

Pollution Control Boards and Courts: Zero discharge norms

Planning Commission: Water audits, disclosure



Ministry of Water Resources/Ministry of Corporate Affairs: National Bureau of Water Use Efficiency





Reputation – conflicts, distress, huge potential loss of market share, access, social and physical license to operate

Beverages: Citizen protests in Kerala, Rajasthan

Thermal: Maharashtra

Textiles: Tirupur, Pali

Distilleries: Uttar Pradesh







Water risks as perceived by the industries today



Legend : Size of the bubble represents intensity of physical risk for the sector

Risk perception varied across sectors

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Industry response: mostly within fence & short term





Indian companies are doing a lot

- Installing rooftop
 rainwater harvesting
- Wastewater treatment and recycling
- Use of advanced technologies like zero discharge for treatment
- Heat recovery

Watershed management & groundwater recharge

Is this enough to insulate from long term water risks?

From beginner to a leader









Basin water governance





Development, supply chain and climate drivers



Solution lies in working together



Businesses

Physical (direct & supply chain)
Reputation (perceptions, conflicts)
Regulation (license to operate; cost of water)
Economic value

Shared Risk

Government

- Physical (allocations, trade-offs)
- Social/economic
- Institutional

Political

Communities

- Physical
- Equity and access
- Governance

Ecology & livelihoods



IDBI is a signatory to the CDP Water Disclosure in India



'Corporate disclosure of water-related risks is seriously inadequate'

JP Morgan Global Equity Research March 2010

Collective action to Secure water for People, businesses and nature

www.wwfindia.org