



IND  
2014

# INDUSTRY AND WATER RISK

**WATER IS A SHARED RISK BETWEEN MULTIPLE AND OFTEN COMPETING WATER USERS SUCH AS HOUSEHOLDS, AGRICULTURE, INDUSTRY, AND THE ENVIRONMENT**

In the last decade India has witnessed a dramatic shift in the demand and consumption of water. Nearly 25 per cent of the country's population lives in water-scarce areas where the per capita availability of water is less than 1,000 cubic meters per year. Fourteen of the twenty major river basins in India are already water-stressed and will move towards extreme water scarcity by 2050. Climate variability including irregular and altered rainfall patterns cause additional stress on scarce water supplies.

Though industrial consumption currently accounts for only about 8% of freshwater consumption in the country, water being a shared resource, can pose substantial risk

to companies' operations and profitability. It is a shared risk between multiple and often competing water users such as households, agriculture, industry, and the environment. The projected increase in consumption of water by industry from 42 km<sup>3</sup> per year in 2000 to 161 km<sup>3</sup> per year by 2050 will substantially increase risks to both industry as well as river basins.

The impacts of water availability and its management are very local and lead to company-related risks which are location and sector-specific. There is a need to better understand the shared risks across the river basin, sub-basin, lake or the groundwater system in which company facilities are located.



## BASIN AND COMPANY – RELATED RISKS

	PHYSICAL RISK	REGULATORY RISK	REPUTATIONAL RISK
<b>BASIN RELATED RISK:</b> Linked to the location	Water quantity (scarcity, flooding, droughts) and quality (pollution) in the river basin, lake or aquifer that the company extracts its water from	Strength and enforcement and changes in water regulations by government agencies like CPCB in the basin/ sub-basin / region	Perceptions related to water use and pollution in the basin that may negatively impact the brand image and influence purchasing decisions
<b>COMPANY RELATED RISK:</b> Linked to the company behaviour	Water quantity and quality issues that are unique to the company and the sector (e.g. company requires very large quantity of water or water needs processing before it can be used)	Regulations that are unique to a company and the sector due to sector specific standards or international regulations which are applicable to export oriented products of the company	Brand image of a company gets tarnished when its actions are considered harmful to the environment by the local stakeholders

## EXAMPLES OF MANIFESTATION OF WATER RISKS:

- In 2004, civil society campaigns, community level conflicts and government action led to the closure of a beverage bottling plant in **Plachimada, Kerala**.
- In 2007, the auto ancillary industry in **Hosur, Tamil Nadu**, faced severe water shortages due to over-extraction and pollution of aquifers and lakes.
- In 2011, about 700 textile units in **Tirupur, Tamil Nadu**, were shut down on a Madras High Court order for excessive water pollution.
- In 2011, the Allahabad High Court directed the closure of 400 chromium based tanneries in **Kanpur, Uttar Pradesh**, due to high Chromium level found in the Ganga river.
- In 2012, water shortages forced a major refinery to shut down two of its units for 45 days, **Mangalore, Karnataka**.
- In 2013, water supply to a major brewery in **Aurangabad, Maharashtra**, had to be cut off, following the extraordinary water scarcity situation prevailing in the area.
- In 2013, the IT industry near **Chennai, Tamil Nadu**, faced shut down due to shortage of water tankers that depended on groundwater availability in nearby villages.
- In 2014, Uttar Pradesh Pollution Control Board (UPPCB) issued notice to 956 grossly polluting industries for releasing their effluents directly into the **Ganga river basin**.

## MEASURING THE RISK

A starting point for water risk mitigation for businesses is building an understanding of their exposure to water risks. Many companies find it difficult to assess complex water issues and very few fully understand their exposure to water risks. Often, water risks are “hidden” in supply chains, and therefore difficult to unpack and address.

As one of the world’s leading conservation organizations, WWF has five decades of experience working with water users to protect this vital shared resource. The Water Risk Filter ([waterriskfilter.panda.org](http://waterriskfilter.panda.org)), developed by WWF in partnership with the German development finance institution DEG, is a practical online tool that not only helps users assess and map water risks, but also provides concrete steps to mitigate them. It uses the best global data available, as well as company-specific information provided by the user, to go beyond the obvious scarcity issues and analyze all relevant indicators of water risk.

Since its launch in 2012, WWF Water Risk Filter has been used by more than 1,500 companies to assess the water risks to tens of thousands of facilities across the globe

## Salient Features

The Water Risk Filter is designed to be easy to use for non-water experts. Results are based on the best available scientific data. Unique features include the following:

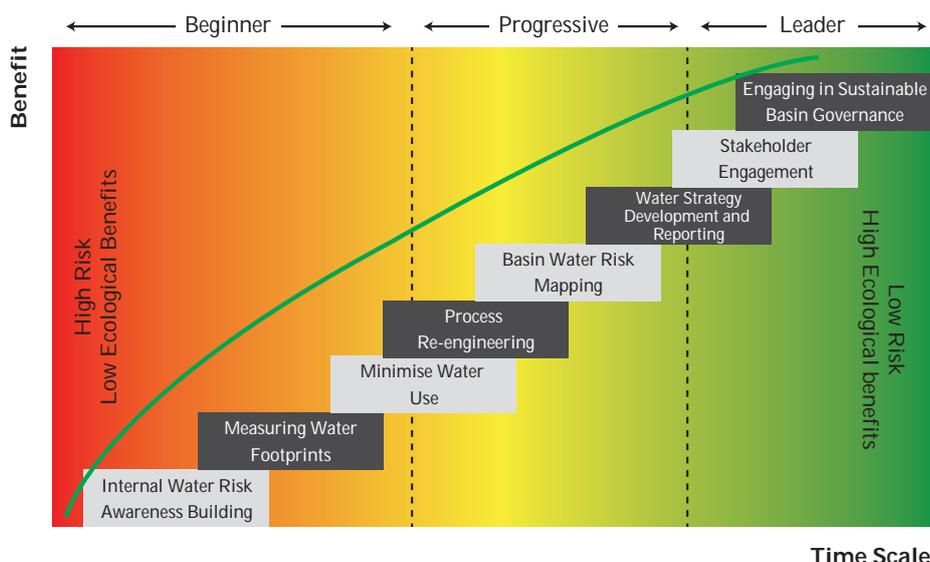
- Evaluating risk from a business perspective. It is the first tool to cover all elements that can influence company’s profitability, not just scarcity and pollution.
- An automated assessment gives a detailed assessment of risks related to the location of the assessed facility in less than five minutes, and determines if additional evaluation through a company-specific questionnaire is necessary.
- Global data profiles for all countries in the world provide extensive mapping functionality and up-to-date case studies.
- The assessed facilities can be plotted on 37 different map overlays with relevant water information.
- The tool also provides a mitigation toolbox for the user.



# WATER STEWARDSHIP APPROACH TO RISK MITIGATION

Water stewardship is a 'journey' that helps businesses to minimize their impact on water, engage and collaborate with other consumers to reduce their collective impacts and helps strengthen the way in which river basin resources are managed. Water stewardship entails a range of activities from better understanding of water footprint, water accounting, audits, demand management and efficiency initiatives, risk assessments and response; pro-active investment in watershed management; understanding biodiversity and aquatic, wildlife and social issues related to water; development of new standards and tools, as well as participation in national and international water policy debates. The framework below outlines each phase of this water stewardship journey, from Beginner to Progressive to Leader.

Most Indian companies are either below or at the Beginner level. However, there are a few exceptional companies that are at an early Progressive level. While these internal actions might work in the short term, a longer-term risk mitigation strategy would need a collaborative approach with stakeholders who share these risks.



WWF is engaging businesses from across the sectors and geographies to embark on water stewardship journeys. Besides helping businesses understand water risks and develop water stewardship initiatives, WWF can provide industries with vital linkages to local communities, NGOs and governments and access to international case studies and best practices.

Together we can secure the water needed for business, people and nature.

## So How Do You Begin Your Water Stewardship Journey....

1. **Assess your water risks** using the Water Risk Filter ([waterriskfilter.panda.org](http://waterriskfilter.panda.org)).
2. **Contact Us** to explore opportunities and mutual synergies for Water Stewardship.

### OUR MAJOR PARTNERSHIPS ON WATER



### CONTACT

WWF-India, 172 B, Lodhi Estate, New Delhi- 110003

Sanket Bhale  
Sr. Manager (Water Stewardship)

M: 9811581380

E: [sbhale@wwfindia.net](mailto:sbhale@wwfindia.net)

