Understanding Water Footprint, and Cost of Compliance vs. Non-compliance

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The business of sustainability

ERM

Presentation Outline

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- Water Footprint of India, Inc.
- Cost of Doing Business
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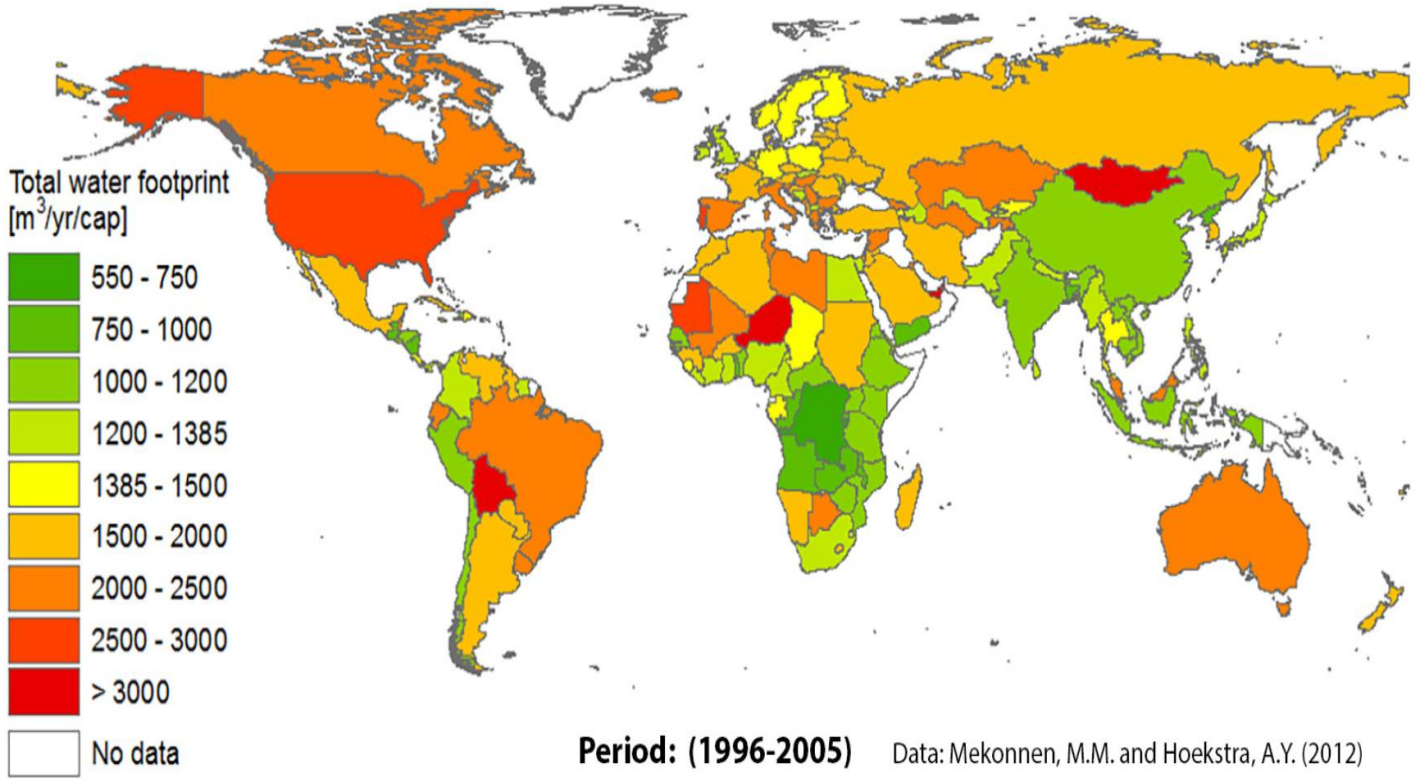


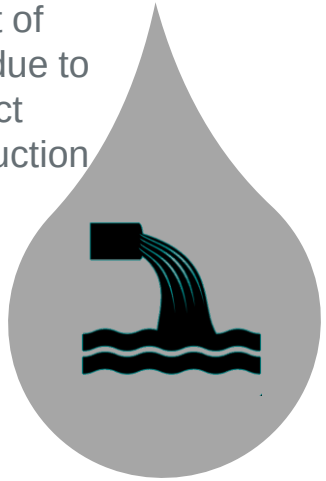
What is Water Footprint?

- Definition – "*The water footprint is a measure of humanity's appropriation of fresh water in volumes of water consumed and/or polluted.*"
- In simple terms, Water Footprint is a measure of the amount of water used to produce each of the goods and services we use.

Volume of **rainwater** which is consumed in the process of production of various agricultural and forest products

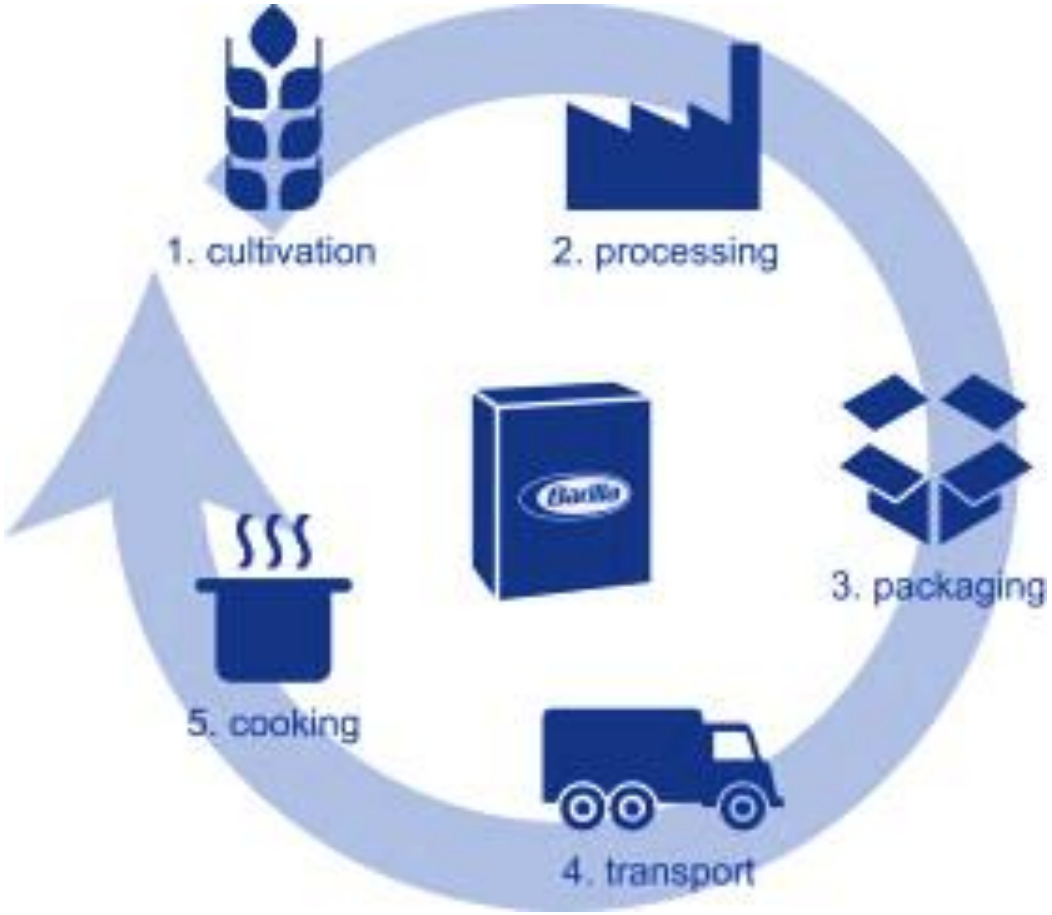
Volume of both **surface and groundwater** which has been consumed to produce a final product

Indicator of the amount of **pollution of freshwater** due to production of a product throughout its entire production and supply-chain



Business Water Footprint
What is it?

- It is a measure of the total water consumed to produce the goods and services that a business provides.
- It is a combination of the water that goes into the production and manufacturing of a product or service, and the water used throughout the supply chain, as well as during the use of the product.
- ***Understanding your water footprint helps you understand where water is important to your business and how it relates to the products you are making.***



Business Water Footprint
Why is it Important?

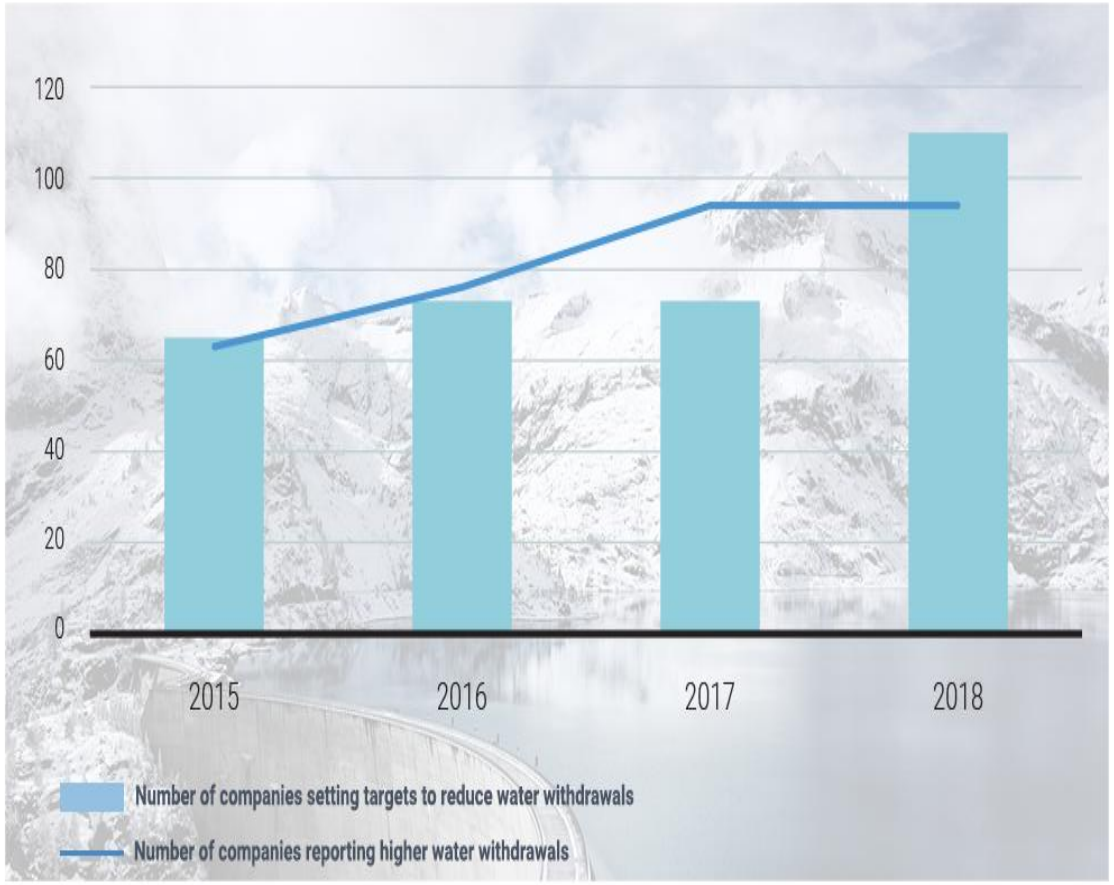
- The World Economic Forum's Global Risks 2019 Report listed water crises as one of the top 5 global risks in terms of Impact.
- Water Footprint Assessment of a business offers a new perspective for developing a well-informed corporate water strategy.
- Companies have traditionally focused on water use in their operations, not in their supply chain.
- Typically, companies have their supply water footprint much larger than their operational footprint and hence, they need to address the water risks associated with, not only their operations, but supply chain water footprint also.

Source: The Global Risks Report 2019 – World Economic Forum

Business Water Footprint
Why is it Important?

In 2018, water-related financial losses reached US$36 billion

- Carbon Disclosure Project's (CDP) Global Water Report 2014, 2/3rd of the world's largest companies reported exposure to water related business risk that could generate a substantive change in their business, operations or revenue.
- In 2018, **75% companies reported water risk** exposure, compared to 70% in 2015.
- The majority of risk reported are relating to water scarcity and declining water quality.

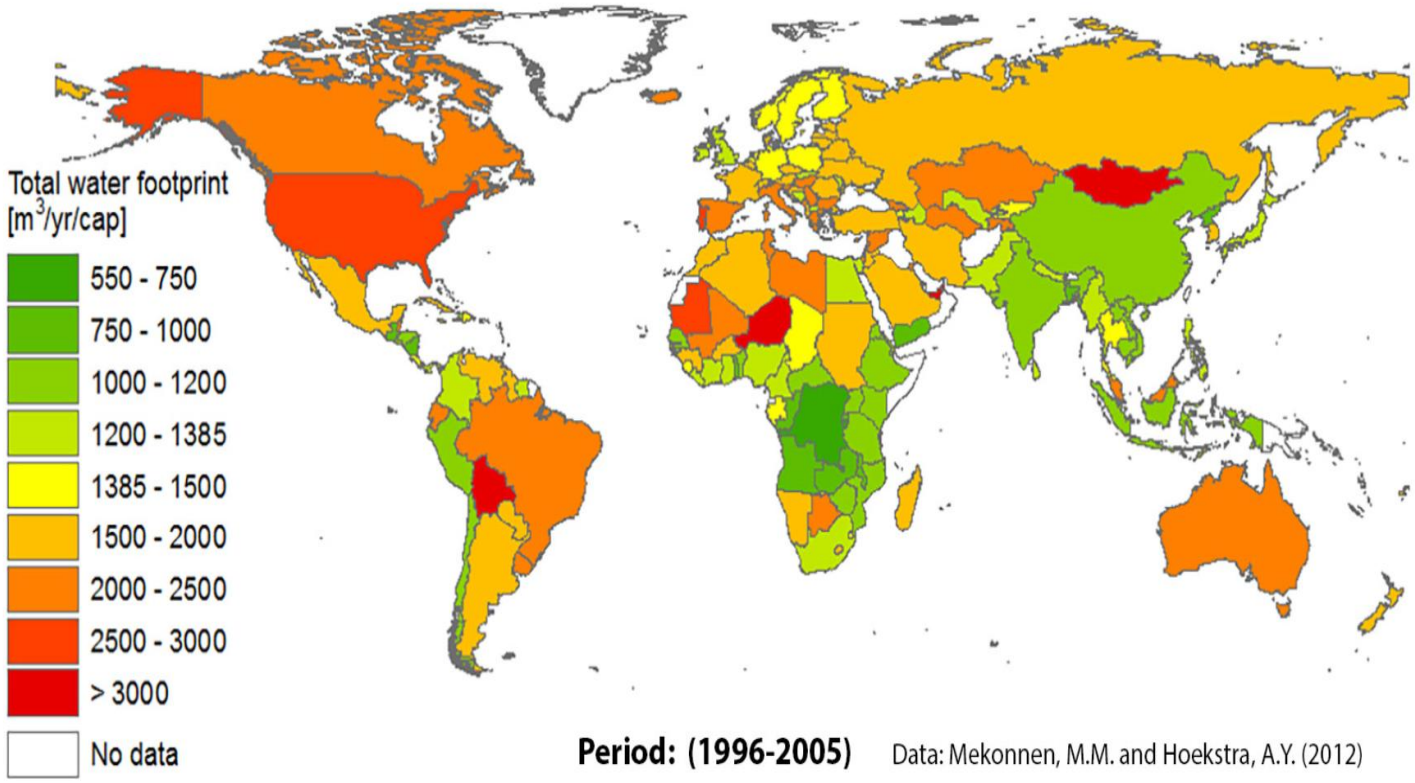


Source: CDP's Global Water Report 2018

India Water Footprint

Water Footprint of India

- India's water footprint — 980 m^3 per capita, which is ~25% below the global average of 1,243 m^3 per capita
- Due to India's large population of over 1.3 billion, we contribute to a significant 12% of the world's total water footprint
- This number is simply not sustainable and urgent measures need to be adopted **ALL** to manage this fast depleting resource.

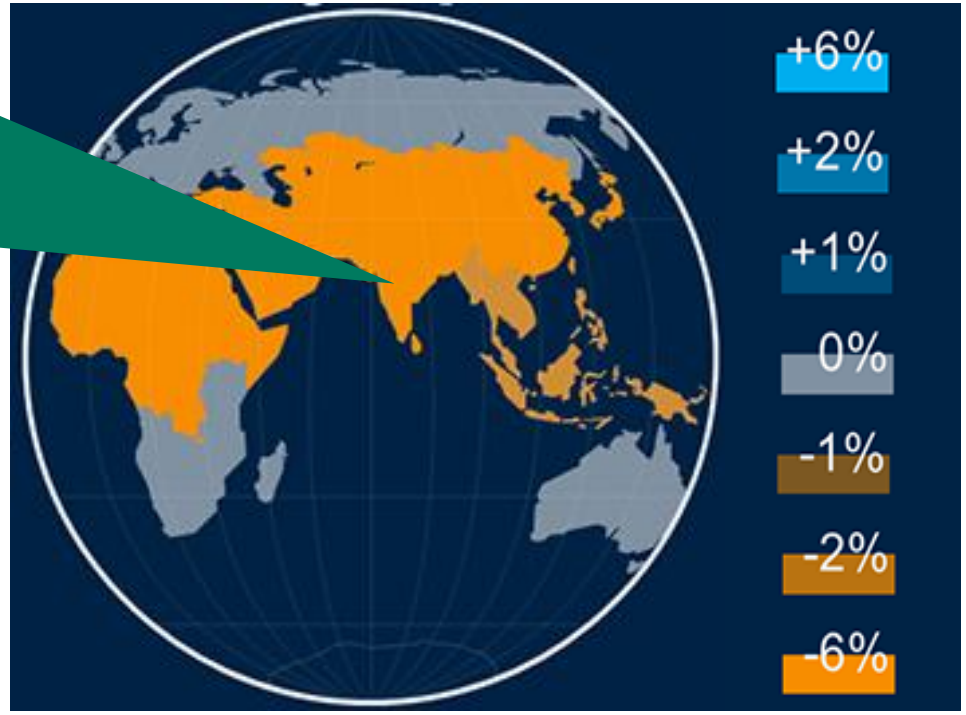


India Water Footprint Share

Impacts of Water Footprint on India, Inc.

- The large water footprint of India (987 billion m^3/year) will have its adverse impacts on river flows and riverine ecosystems, groundwater levels, and ultimately on people's lives.
- India is projected to move into the category of water-stressed nation by 2020.
- Water related risks to industries in India are growing.
- Availability of water is becoming an area of concern for the industries across different sectors.

According to World Bank, by 2050 Countries (including INDIA) with Water Scarcity will suffer from 6% negative growth in GDP



Cost of Doing Business

Compliance vs. Non-compliance

Business Risks

Physical Risk	Regulatory Risk	Reputational Risk
Water quantity and quality in the surface and groundwater resources are fast depleting	Water regulations and their enforcement is getting stronger by regulatory authorities	Water use and pollution by the industry may negatively impact the brand image and influence purchasing decisions

Cost of Compliance

- Risk Mitigation will increase the business costs
- Physical and regulatory risks will require industries to invest more in their water treatment schemes
  - **Efficient production processes** – better technology
  - Changes to manufacturing process – **less water usage, water reuse, and recycling**
  - Effective Wastewater Treatment – **Wastewater recycling (ZLD)**
- By mitigating physical and regulatory risks, an industry can build a reputation of a Leader in Water Stewardship, thereby taking care of reputational risk.

Efficient Production Process

Reduce, Reuse, & Recycle

Cost of Non-compliance

- Cost of Non-compliance is set to rise rapidly
- Heavy fines imposed by NGT, Closure orders by SPCBs
- Provisions are in place for imposing criminal charges leading to imprisonment (18 months to 6 years+)
- 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 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.

NO MORE OSTRICH-IN-SAND APPROACH

“We all face a choice: seize the opportunities of the transition to a stable climate and a water secure future, or continue business as usual and face untold risks.”

- Paul Simpson, CEO CDP

Thank you

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