
Water Footprint – Part 1

Understanding the concept



What is water footprint?

- The water footprint assesses the quantity of water utilized in the production of goods and services across various contexts.
- It can be quantified for individual processes, such as rice cultivation, specific products like clothing items, or even for broader entities like multinational corporations.
- Additionally, it offers insights into the water consumption patterns of specific regions, nations, river basins, or aquifers, both at local and global scales. .
- In addition to measuring water usage, the water footprint serves as a valuable tool for evaluating potential environmental consequences associated with water utilization.





Types of water footprint

Blue water footprint

- Blue water refers to the surface and groundwater resources found in lakes, rivers, and reservoirs.
- The blue water footprint measures the volume of available freshwater consumed directly from these sources for various purposes, such as drinking water and industrial usage.



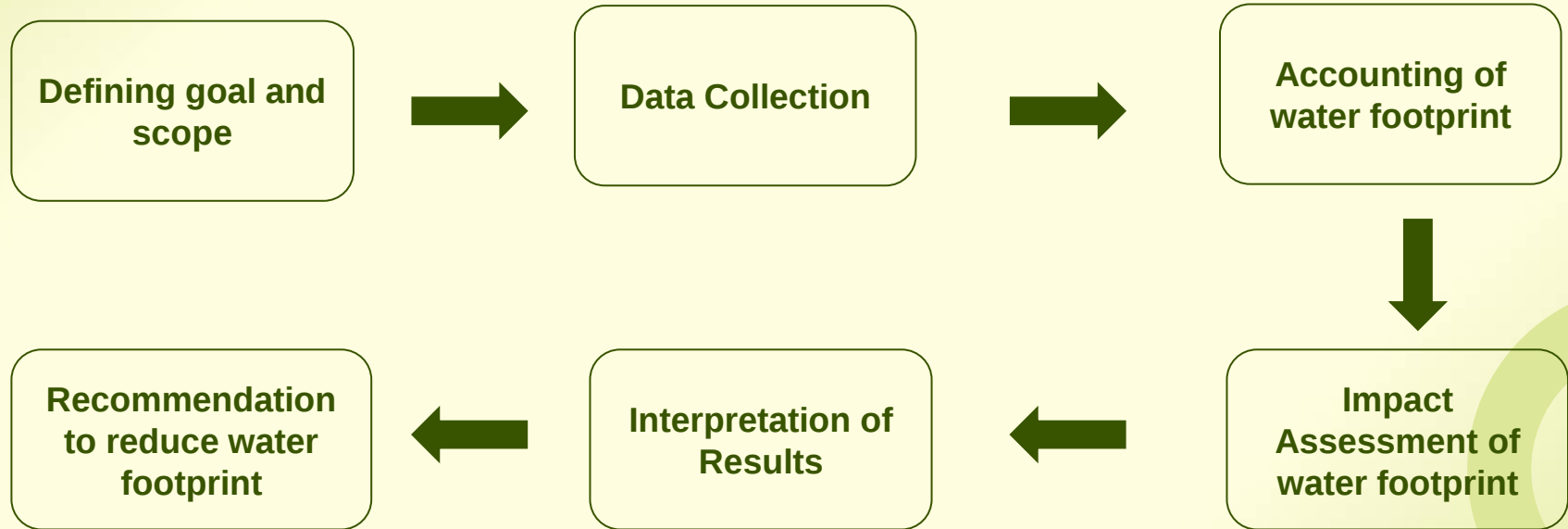
Green water footprint

- Green water refers to the moisture stored in soil that is accessible to plants and soil microorganisms.
- This water is absorbed by plant roots, utilized in plant growth, and released into the atmosphere through transpiration.
- The green water footprint quantifies the amount of rainwater and soil moisture consumed by vegetation.

Grey water footprint

- Grey water refers to previously used water originating from urban areas, households, and industrial processes, often undergoing treatment before discharge.
- Grey water management involves treating and recycling wastewater to minimize environmental impact and optimize water resource utilization.

Methodology to assess water footprint





ISO Standard

ISO 14046: Water footprint Principles, Requirements, and Guidelines

- ISO 14046:2014 establishes principles, requirements, and guidelines for evaluating water footprints in product, process, and organizational assessments using life cycle assessment (LCA) methodology.
- It offers a framework for conducting and reporting water footprint assessments independently or as part of broader environmental evaluations.
- The standard focuses on emissions to air and soil that affect water quality, omitting considerations for all air and soil emissions.



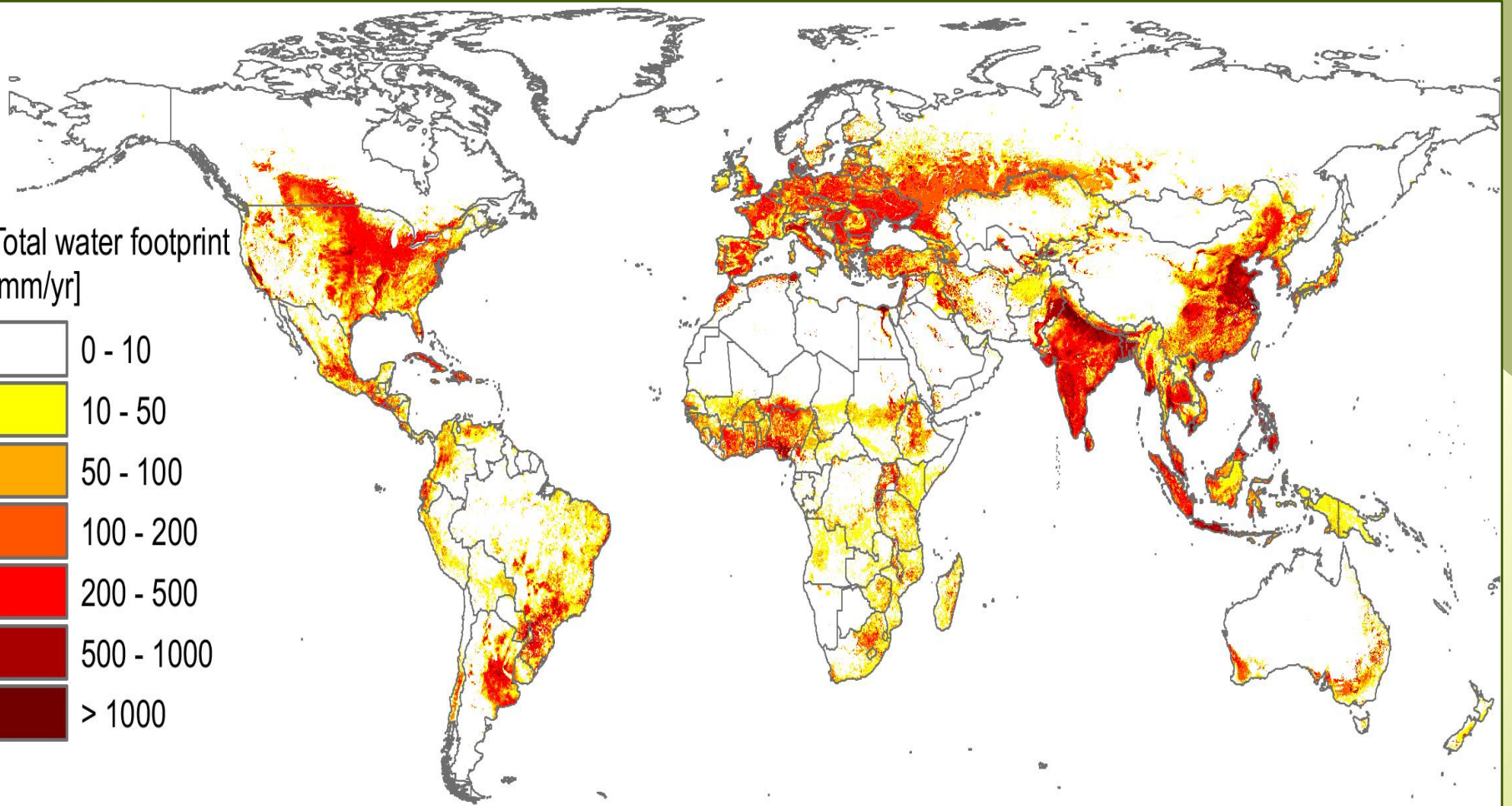
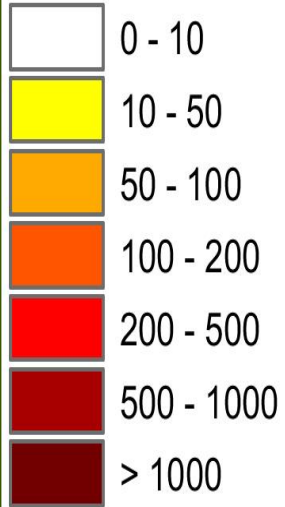


Water footprint of some countries

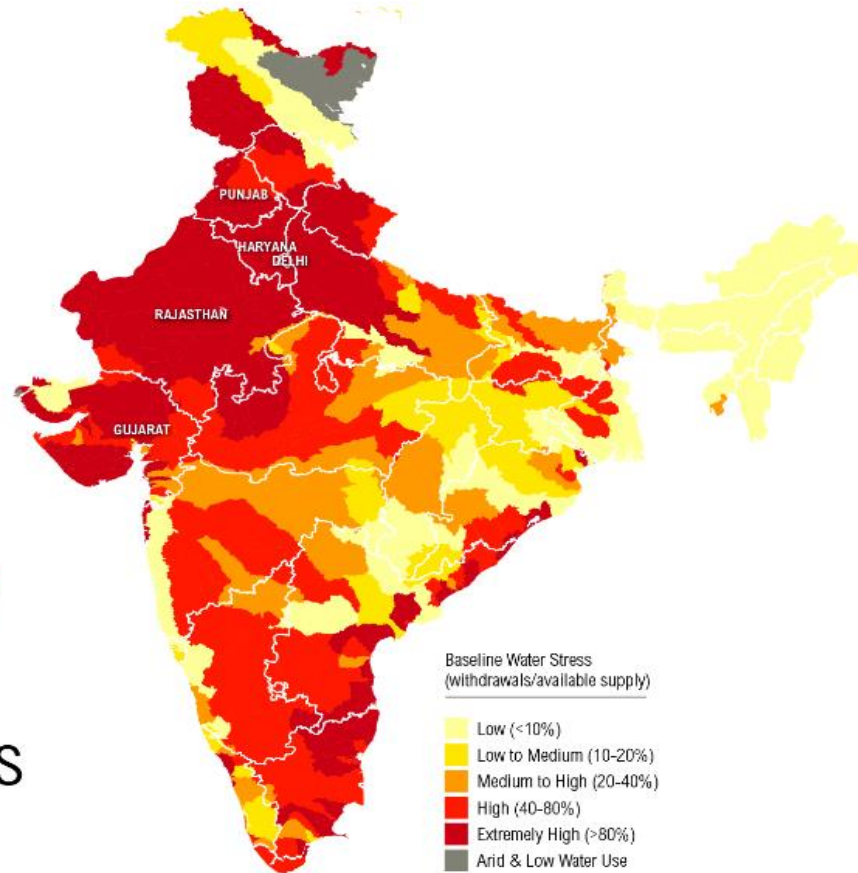
- India has the highest water footprint among countries, consuming approximately 987.38 billion tons of water annually. India's high-water usage reflects its population size, agricultural practices, and industrial development.
- China: China follows closely with a water footprint of 883.39 billion tons per year.
- United States: The US utilizes 696.01 billion tons of water annually.
- Russia: Russia's water footprint stands at 270.98 billion tons.
- Indonesia: Indonesia consumes 269.96 billion tons of water.
- Brazil: Brazil's water footprint is 233.59 billion tons.



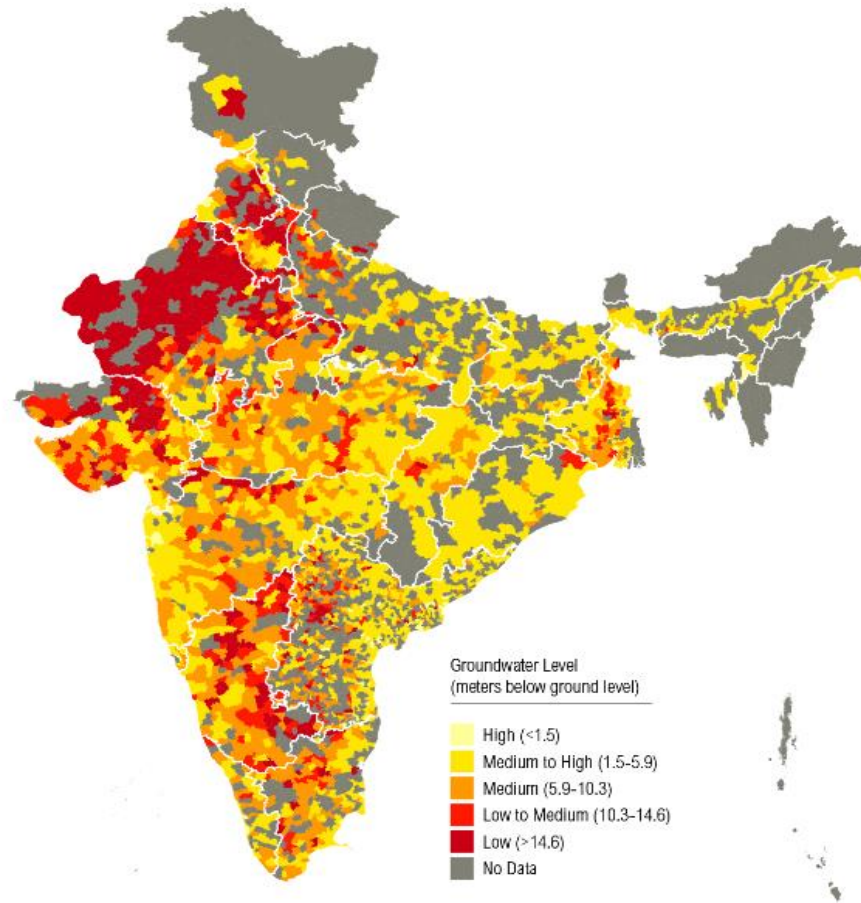
Total water footprint
[mm/yr]



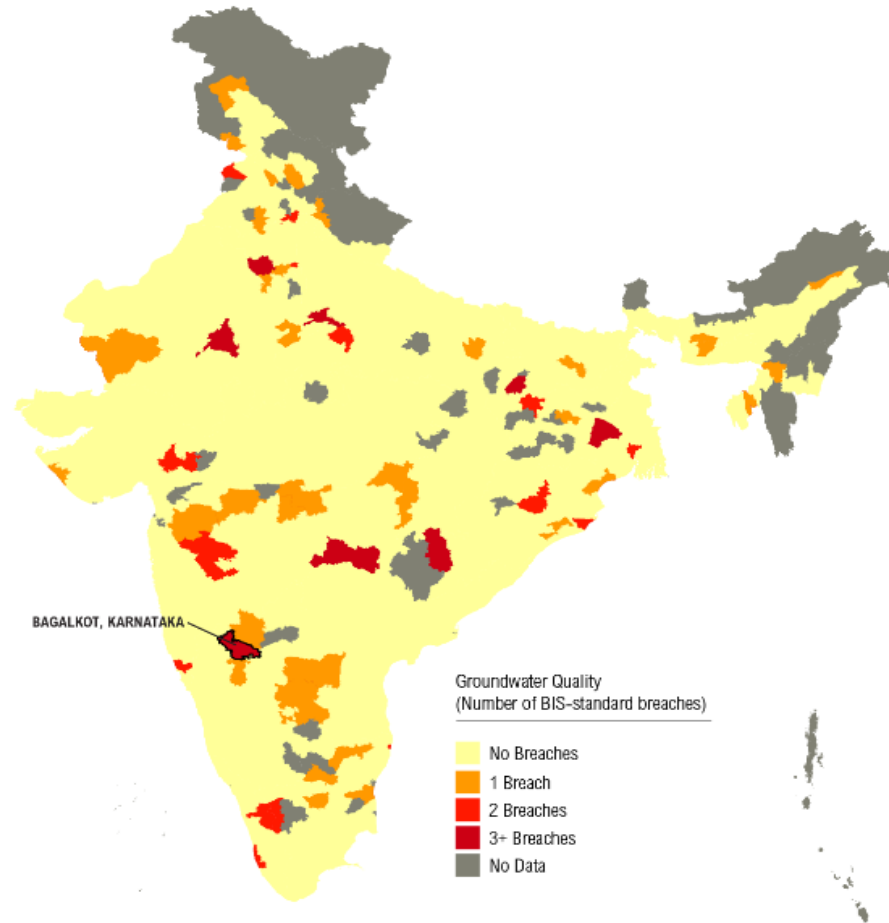
54%
of India
Faces
**High to
Extremely
High**
Water Stress



54%
of India's
Ground-
water
Wells Are
Decreasing



More than
100
MILLION
People Live
in Areas of
Poor Water
Quality





Conclusion

- The concept of a water footprint has emerged as a crucial metric in assessing and managing water usage across various sectors.
- Corporates also play a crucial role in assessing and reporting their water footprint, a key metric in managing water usage.
- By conducting thorough evaluations, companies gain insights into their environmental impact and identify opportunities for improvement.
- Transparent reporting demonstrates accountability and contributes to broader sustainability goals, driving meaningful change towards responsible water stewardship.



THANK YOU