Water Issues In India

by
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Ancient days of Civilization
- Indus Valley Civilization (3300 – 1700 BC)
Current days

- Area: 3,287,590 sq.km (7th largest)
- Population: 1.12 billion (2nd in the world)
  (70% being rural)
- Largest democracy in the world
- Literacy rate: 64.8%
- Per capita income: US$ 707
- 25% of population is below poverty line

Climate

- Four official seasons
- Winter (January – March) (50-77°F)
- Summer (March – June) (90-104°F)
- Rainy or Monsoon (June – September)
- Post Monsoon (October – December)

Most of the country’s rainfall is due to the monsoons.

Monsoons and Rainfall

River basins and conflicts
Water Scarcity, Demand and Usage

Of the total water usage, 92% is for Agriculture, 5% for Domestic, and 3% for Industrial.

The overall water demand is supposed to increase from 552 BCM to 1050 BCM by 2025.

Average urban water usage is 135 liters/person/day.

Demand from the industrial and domestic sectors is expected to increase with the growing population, urbanization and industrialization.

86% of the population has access to improved water use.

Only 33% of the population has access to improved sanitation.

Household and Drinking Water
(Wells, Bore Wells and Taps)

Some stats on water supply duration

None of the 35 Indian cities with a population of more than one million distribute water for more than a few hours per day.

No city has a continuous water supply.
Reasons for water scarcity

- Rising demands of increasing population
- Over extraction of easily available surface and groundwater resources
- Increasing human impact on the environment and contamination of available water sources
- Changing climate

Waste water and Sanitation

- Cities account for a production of 29,000 million litres of waste water but there is only a management capacity for 6000 million litres.
- More than 300 cities with a population of and above 100,000 are completely without sewers.
- As of 2003, it was estimated that only 30% of India's wastewater was being treated, with the remainder flowing into rivers and groundwater.
- The sewer system, in the places they are present, are in seriously bad condition and need maintenance, replacement in addition to a great expansion to keep up with the pace of the growing urbanization.

Some more facts

- All the run-off from storm water is discharged as sewage.
- Storm water management was never considered as a serious issue until 2000.
- Advanced water treatment technologies are only limited to highly developed urban cities.
- All the major 18 rivers in India were polluted due to discharges from agricultural, domestic and industrial uses because the effluent is not pre-treated prior to discharge.
- Groundwater is contaminated and depleted day by day.
- Diarrhea alone causes more than 1600 deaths daily.
- 21% of the communicable diseases are water related.
Conclusions
India needs:
• Efficient water management strategies and techniques (Conservation, Reuse and Recycle)
• Awareness in people regarding water management
• Improved water treatment technologies and access to good sanitation and drinking water
• Rainwater harvesting (capture and store rainfall and use if efficiently)
• **** Water and environmental related classes to be offered at the college and university level in all educational institutions.

Thank You