

# Bottled Water Industry in India: loot of commons, environmental destruction and abdication of state responsibility

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Delhi Science Forum



**Workshop on Regulation and Management of  
Groundwater in the Age of Climate Change: Need for  
Legal Reforms in India**

**National Law University, Delhi**

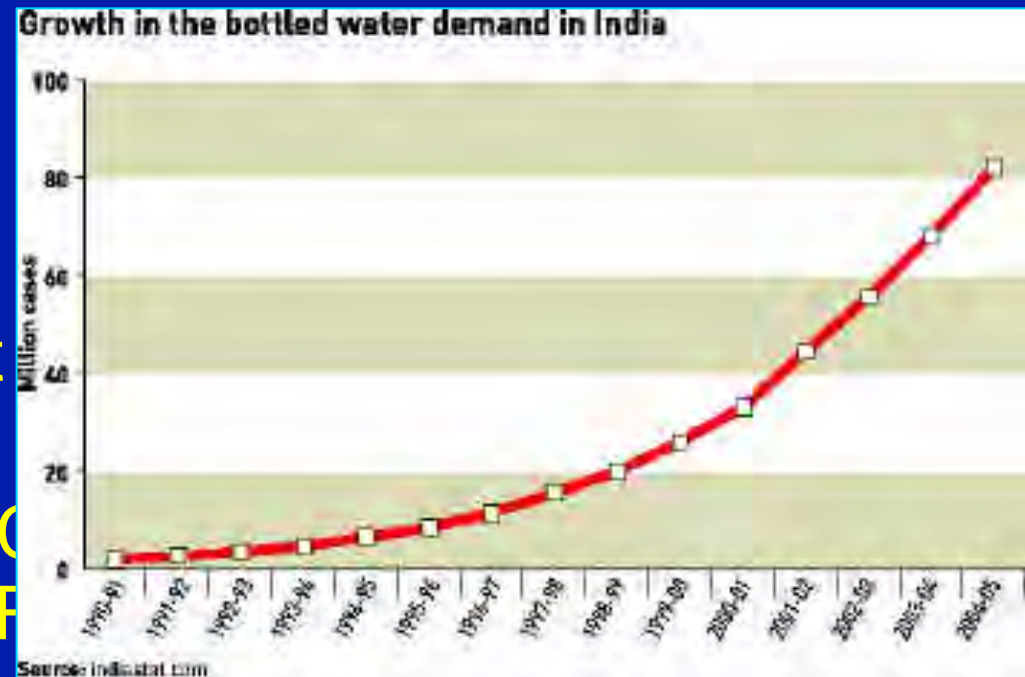
**April 10, 2015**

# Context

- ◆ India is rapidly approaching crisis levels of fresh water availability (1540m<sup>3</sup>/person p.a. in 2011; 5177m<sup>3</sup> in 1951): close to 'water scarce' (<1000m<sup>3</sup>) from present 'water stressed' (<1700m<sup>3</sup>)
- ◆ >85% used in agriculture (6% domestic)...
- ◆ groundwater 65% of irrigation, 85% of drinking water
- ◆ India is becoming conscious of energy conservation but not so much about water use/conservation/audit
- ◆ groundwater misuse and over-exploitation is rampant; 60% sources projected to be near critical

# Market Overview

- ◆ total market valued at (bn water business)
- ◆ market growth  $\approx 22\%$  (growing sectors; est. F)
- ◆ top 5 Players, Bisleri, Dhariwal and Parle  $\approx 6$
- ◆ regional/local players in small towns



max. sales in retail sector;  
bulk water and events are  
increasing

# Major social and environmental impact

- ◆ total groundwater used by bottled water industry may be small as a proportion of the total but...
- ◆ has major impact in Plant locales: villages largely depend on underground sources for drinking water, other domestic purposes and agriculture
- ◆ contamination of groundwater, pollution due discharge with local communities





## Other environmental impacts

- ◆ Bottled Water uses 350x energy used for Tap Water
- ◆ Energy demand in BW manufacture  $\approx 7.08\text{MJ/litre}$ .
- ◆ Water footprint of 1 litre of BW  $\approx 17.41$  litres of water!



in the  
plastic w



# Reasons for Rapid Growth in BW

## consumption

- ◆ rapid urbanization
- ◆ water utilities not keeping pace: sourcing, treatment, quality, distribution
- ◆ growing public concern over tap water quality
- ◆ inability of utilities to ensure potable water quality
- ◆ parallel push for domestic water treatment systems feeds on and fuels public perceptions
- ◆ lifestyle, consumerism



# Unregulated High-profit business

- ◆ virtually free groundwater
- ◆ BW cost of production  $\approx$  Rs 0.25/litre
  - Example: Coca-Cola BW plant in Kala Dera, Rajasthan pays only tiny cess for discharging wastewater;
  - paid approx. Rs.25,000 p.a. to State PCB
  - extracts 500 million litres/day
  - Cost of RM  $\approx$  Rs.0.14/1,000 litres
  - water cost in Rs.10 Kinley BW  $\approx$  0.02-0.03 paise
  - [Source: Bhushan, Chandra 2006 Bottled Loot: The structure and economics of the Indian bottled water industry. Frontline 23(7): April 8–21.]*
  - Cost elsewhere: USA Rs.21; UK Rs.90; Canada: Rs.76
- ◆ Profit margins: 25-50%
- ◆ users mostly unaware of poor quality of BW due to contamination of ground water

## Groundwater Regulation: structurally flawed

- ◆ owner/user of land also “owns” groundwater beneath
- ◆ hence “free”
- ◆ privatization of commons
- ◆ Indian Easements Act 1882
- ◆ jurisdictional conflict between Union and States: Central Groundwater Authority supposedly custodian of groundwater but powerless



# Curbs on BW industry

- groundwater as scarce common resource
- regulation of commercial/private use
- recover environmental and social costs wrt water and packaging material
- discourage routine consumption of BW
- massive improvement in municipal water utilities especially in potable water quality
- campaigns against BW and supporting filtered water and potable quality tap water

# Restructured Governance of Groundwater: Regulation, Monitoring & Enforcement

- appropriate Union and State Groundwater Acts and Regulatory agencies
- groundwater as common good (not economic good as proposed under NWP 2012)
- ?fate of model Groundwater Bill/State Acts in light of TSR?
- revised rules and strict regulation of commercial use
- effective Union/State roles in monitoring
- integrate groundwater regulation with other mandates, such as for pollution, climate change, links with surface water systems and ecological cycle
- comprehensive mapping of groundwater resources
- conservation of groundwater incl area-specific regulation

# Thank You

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P.S.: See DSF Campaign for Water-saving  
WC

Flush Standards and mandate