

General Studies-1; Topic: Urbanization and its problems

Water Quality in Indian Cities

1) Introduction

- The Central government recently released a study on the quality of piped drinking water being supplied in 21 cities across the country.
- The results show that tap water was "undrinkable" in as many as 13 state capitals, including Delhi.
- Under its flagship Jal Jeevan Mission, the Centre aims to provide safe piped water to all households by 2024.

2) Highlights of the Study

- Water samples were collected from 11 different locations and all samples drawn did not comply with the requirements of the Bureau of Indian Standards (BIS).
- The samples failed in several of the parameters.
- Delhi did not comply with the quality norm and the piped water was not safe for drinking purpose
- Cities, including Kolkata, Chennai, Bengaluru, Jaipur and Lucknow, where all tested samples failed to meet the BIS norms for piped drinking water.
- Mumbai is the only city where all samples of tap water met all the tested parameters.



3) City Water System

- City water systems are normatively required to comply with the national standard for drinking water
- But they lack due to expanding footprint of packaged drinking water, especially in populous cities
- There is high dependence on groundwater in fast-growing urban clusters where State provision of piped water systems does not exist.
- The Indian standard has quality requirements, including absence of viruses, parasites and microscopic organisms, and control over levels of toxic substances.
- In practice, municipal water fails these tests due to the lack of accountability of the official agencies
- Absence of robust data in the public domain on quality testing.

4) Concerns / Challenges

- While it is mandatory for bottled water manufacturers to meet quality standards, the BIS standard is voluntary for the public agencies which supply and distribute piped water.
- The Centre's approach to the issue relies on naming and shaming through a system of ranking, but this is unlikely to yield results.
- Considering that 21 cities — including many of those found to have unclean tap water — could run out of groundwater as early as 2020, as per a NITI Aayog report.
- The Central Ground Water Board estimates that nearly a fifth of the urban local bodies are already facing a water crisis due to excessive extraction, failed monsoons, and unplanned development.
- The response of water departments to the challenge has been to chlorinate the water supply, as this removes pathogens, ignoring the aspects as appearance, smell and taste.

5) Way Forward

- The solution to this problem is to make compliance of quality standards for piped water mandatory across the country.
- Stringent action cannot be taken unless the standard becomes mandatory.
- Making it legally binding on agencies to achieve standards and empowering consumers with rights is essential
- State governments would then take an integrated view of housing, water supply, sanitation and waste management.
- A scientific approach to water management is vital.
- On the issue of regular testing, entrusting a separate agency with the task in each State, rather than relying on the same agency that provides water to also perform this function.
- If data on water are made public on the same lines as air quality, it would ratchet up pressure on governments to act.