Arsenic-affected Habitations Increased

Why in News

According to data shared in the Parliament, the number of **arsenic-affected habitations in India has increased by 145%** in the last five years (2015-20).

Key Points

- **Increase:** India had **1,800 arsenic-affected habitations** in 2015. This increased to 4,421 habitations as of September 2020.
    - **Habitations** are the group of households at a community level in a village.
    - These are the smallest level of settlements that can have between 10-100 households.
- **Regions Affected:** Most of the arsenic-affected habitations lie in the **Ganga and Brahmaputra alluvial plains.** i.e in **Assam, Bihar, West Bengal, Punjab, and Uttar Pradesh** (UP).
    - **Assam had the highest share** of such habitations (1,853), followed by **West Bengal** (1,383).
    - **Jharkhand,** which did not have any such habitation in 2015, has two now (2020).
    - However, **Karnataka** which had nine habitations in 2015, had none in 2020.
- **Decrease in Fluoride Habitations:** The number of **fluoride** affected habitations has significantly come down from 12,727 in 2015 to 5,485 as of September 2020.
    Rajasthan had the highest number of such habitations (2,956), followed by **Bihar** (861).

- Under **Jal Jeevan Mission (JJM),** priority has been given to such quality-affected habitations through **Community Water Purification Plants** (CWPP) to meet drinking and cooking needs — until potable water supply through tap connection is provided.
    - **JJM** was **started in 2019** with the **aim to provide piped water supply** to every household by **2024.**
    - Under JJM, upto 2% of the allocation to states/ UTs can be utilised for **Water Quality Monitoring & Surveillance activities (WQM&S).**
    - The WQM&S includes setting up and strengthening of water quality testing laboratories, surveillance by community using field test kits (FTKs), awareness generation and educational programmes on water quality, etc.
- A new Sub-programme under **National Rural Drinking Water Programme (NRDWP)** viz. **National Water Quality Sub-Mission (NWQSM)** was started by the Ministry of Drinking Water and Sanitation (now merged with Ministry of Jal Shakti) in 2017 to address the urgent need for providing clean drinking water in about 28000 Arsenic & Fluoride affected habitations.
    - The NWQSM aims to cover all rural populations in Arsenic/Fluoride affected habitations with **clean drinking water on a sustainable basis by March 2021.**
    - The NWQSM was launched with an outlay of **Rs. 25,000 crore.**
- The **NRDWP was started in 2009**, with a major emphasis on ensuring sustainability of water availability in terms of potability, adequacy, convenience, affordability and equity.

    NRDWP is a **Centrally Sponsored Scheme with 50:50 fund sharing** between the Centre and the States.

Arsenic Poisoning

- Arsenic is naturally present at high levels in the **earth crust** and **groundwater** of a number of countries. It is **highly toxic** in its inorganic form.
- **Contaminated water** used for drinking, food preparation and irrigation of food crops poses the greatest threat to public health from arsenic.
- Long-term exposure to arsenic from drinking-water and food can cause **cancer, skin disease, cardiovascular disease and diabetes.**

    In early childhood exposure, it has been linked to negative impacts on **cognitive development** and **increased deaths in young adults.**
- According to the **WHO's guidelines for drinking water quality (2011)**, the permissible limit of **Arsenic in groundwater is 0.01 mg per litre.**

    However, in India the permissible limit in drinking water has recently been revised from **0.05 mg per litre to 0.01 mg per litre.**
- The most important action in affected communities is the **prevention of further exposure** to arsenic by provision of a **safe water supply.**

Fluoride Toxicity

- Excessive fluoride intake usually occurs through the **consumption of groundwater naturally rich in fluoride,** particularly in warm climates where water consumption is greater, or where high-fluoride water is used in food preparation or irrigation of crops.
- Such exposure may lead to **dental fluorosis (tooth decay)** or **crippling skeletal fluorosis,** which is associated with **bone deformities.**

Source: DTE