INDIA'S DRINKING WATER AVAILABILITY - GEOGRAPHY

NEWS: The Centre, under its **Viksit Bharat vision,** aims to ensure clean and safe drinking water directly from taps across India, enhancing water security and public health.

WHAT'S IN THE NEWS?

Targets for Drinking Water under Viksit Bharat 2047

1. **Universal Tap Water Access**

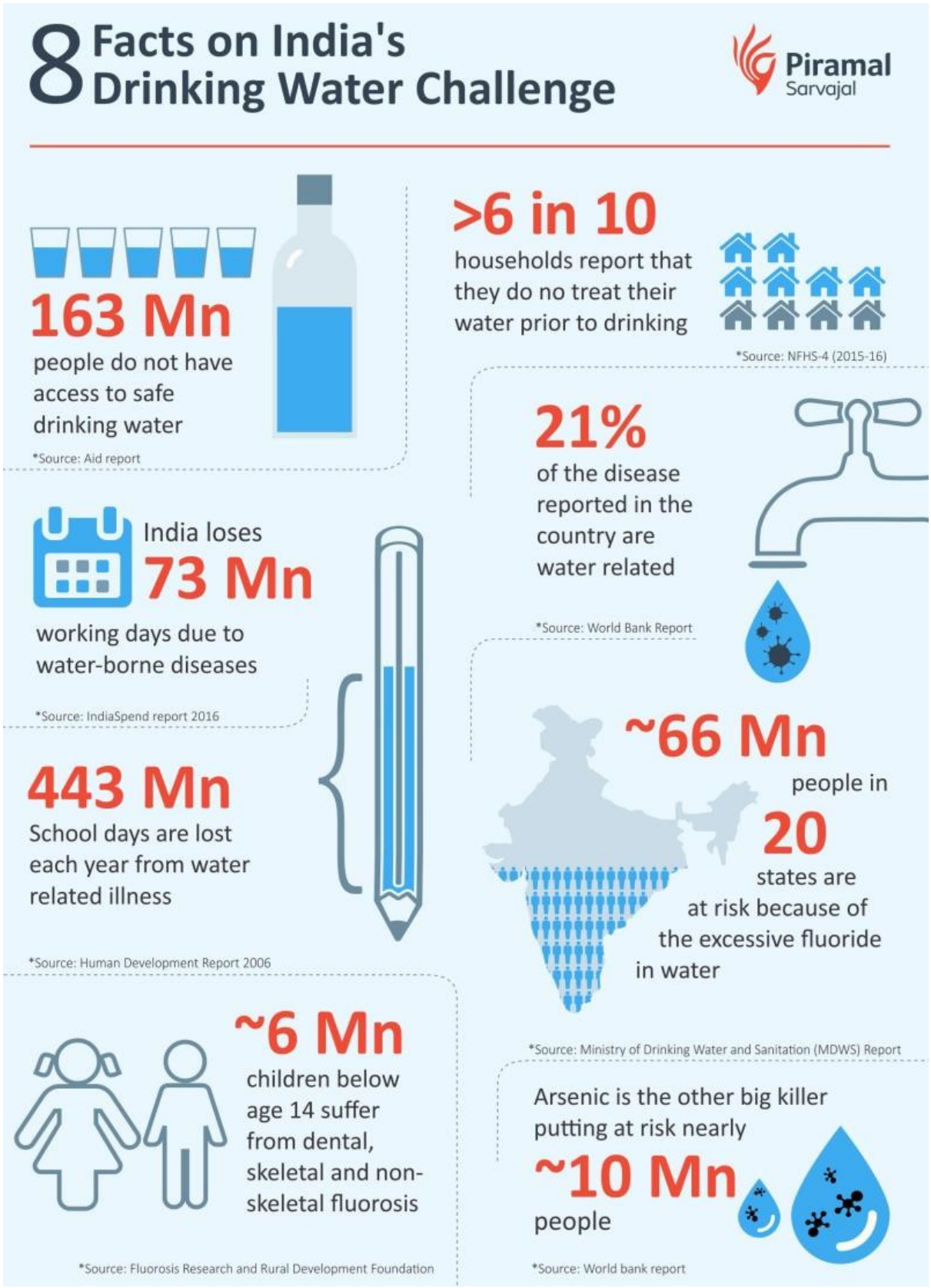
    - Aim to ensure every household, both rural and urban, has access to clean and safe drinking water through direct tap connections.

    - Goal includes reducing reliance on water tankers, bottled water, and handpumps, especially in underserved areas.

2. **Strengthening Water Infrastructure**

    - Plan to modernize and expand water treatment plants, pipelines, and storage systems.

    - Emphasis on building resilient and equitable infrastructure that supports uninterrupted water supply even in water-stressed regions.



3. **Focus on Water Recycling and Reuse**

- Target to recycle 10,000 Million Litres per Day (MLD) of used water to meet agricultural, industrial, and urban water demands.
- Encourages setting up decentralised wastewater treatment systems and use of treated wastewater.

4. **Enhancing Groundwater Sustainability**
    - Strategies include artificial groundwater recharge, aquifer mapping, restoration of traditional wells, and rejuvenation of water bodies.
    - Promote water budgeting and community-based groundwater management.
5. **Integration of Smart Technologies**
    - Introduce smart meters, sensors, SCADA systems, and remote monitoring tools across water supply networks.
    - Improve transparency, reduce leakages, and enable real-time water usage data collection for efficient management.

Status of India's Drinking Water Availability

1. **Progress under Har Ghar Jal**
    - Substantial progress has been made in rural areas under the Har Ghar Jal mission.
    - However, some remote and difficult-to-reach villages still lack tap water connectivity.
2. **Urban-Rural Disparity**
    - Urban areas generally have better water infrastructure, while rural areas still depend on traditional sources like wells, handpumps, and tankers.
    - Bottled water is often the fallback in rural belts lacking water quality assurance.
3. **Groundwater Depletion**
    - Excessive withdrawal of groundwater for irrigation and domestic use has led to declining water tables, particularly in states like Punjab, Haryana, and Rajasthan.
    - Many areas now face seasonal or permanent water stress.

4. **Water Contamination Issues**
    - Fluoride, arsenic, iron, and microbial contamination affect drinking water quality, especially in eastern and central India.
    - This leads to frequent outbreaks of waterborne diseases like cholera and diarrhoea.
5. **Dependence on External Water Sources**
    - Several urban areas rely heavily on distant rivers, dams, and inter-state water transfers due to poor local water harvesting and recharge.
    - This increases transportation costs and vulnerability during droughts.

Gaps in Achieving Drinking Water Targets

1. **Infrastructure Deficiencies**
    - Inadequate and aging pipelines, lack of last-mile connectivity, and insufficient treatment plants hinder reliable water delivery in remote and peri-urban areas.
2. **Slow Water Body Rejuvenation**
    - Although many rejuvenation projects are underway, the pace of restoring lakes, ponds, and rivers is slow.
    - This hampers groundwater recharge and local water availability during dry spells.
3. **Inadequate Recycling Mechanisms**
    - Limited adoption of water recycling technologies in industries and agriculture continues to exert pressure on freshwater supplies.
    - Policy incentives for wastewater reuse remain underutilised.
4. **Data and Monitoring Gaps**
    - Lack of integrated digital water data systems hampers real-time tracking of water availability, usage, and leakages.
    - Manual monitoring leads to inefficiencies and unreported losses.

Key Government of India Initiatives

1. **Jal Jeevan Mission (JJM)**

- Aims to provide Functional Household Tap Connections (FHTCs) to every rural household by 2024 (now extended to 2028).
- Ensures water quality surveillance through community-level testing and women's participation.

2. **Atal Bhujal Yojana (Atal Jal)**
    - Promotes sustainable groundwater management through data-based planning and local community engagement.
    - Targets groundwater-stressed blocks in seven states including Gujarat, Maharashtra, and Uttar Pradesh.
3. **AMRUT 2.0 (Atal Mission for Rejuvenation and Urban Transformation)**
    - Seeks to provide 100% water supply coverage in cities and promote greywater reuse.
    - Supports the use of digital technology for monitoring service delivery.
4. **Jal Shakti Abhiyan**
    - A campaign to promote water conservation, rainwater harvesting, and groundwater recharge in water-stressed districts.
    - Integrates public participation and convergence of government schemes.
5. **National Water Mission (NWM)**
    - Aims to improve water use efficiency by 20% through demand-side management.
    - Encourages water audits, awareness campaigns, and institutional reforms.
6. **Namami Gange Mission**
    - A flagship programme to clean and rejuvenate the River Ganga and its tributaries.
    - Includes building sewage treatment plants and reducing industrial effluent discharge.
7. **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)**
    - Enhances water use efficiency in irrigation through micro-irrigation (drip/sprinkler) and "More Crop per Drop" initiatives.
    - Supports watershed development and water conservation infrastructure.

8. **Mission Amrit Sarovar**

    - Targets the development and rejuvenation of at least 75 traditional water bodies in every district to promote local water security.

    - Encourages community ownership and convergence of multiple schemes.

Source: https://www.thehindu.com/news/national/urban-affairs-ministry-vision-forviksit-bharat-focuses-on-providing-drink-from-tap-facilities/article69490983.ece