



Rising Concerns over Freshwater Shortages

For Prelims: World Wide Fund for Nature, Central Ground Water Board, National Water Policy, 2012, Pradhan Mantri Krishi Sinchayee Yojana, Jal Shakti Abhiyan- Catch the Rain Campaign, Atal Bhujal Yojana.
For Mains: Status of Freshwater Shortage in India, Issues Related to Water Resources in India.

Why in News?

Recently, a global study released by **Circle of Blue** and [World Wide Fund for Nature \(WWF\)](#) analysed **attitudes towards freshwater shortages** by surveying almost **30,000 people from 31 countries**.

- People in **Argentina, South Korea, Vietnam, Colombia, Germany and Peru** reported the largest increases in concerns about water shortages over the past few years.

What are the Major Highlights of the Report?

- **30%** of people claim to be greatly impacted by **freshwater shortages**.
- Strong concerns about freshwater shortages have increased from **49%** in **2014** to **61%** in **2022**, among 17 countries consistently tracked.
- People in **urban areas (32%) are more likely to be greatly affected by a lack of freshwater** than those in **rural (28%) or towns and suburban areas (26%)**.
- 38% of people said they have been **“greatly” personally affected by climate change**.
 - People who claimed to be personally affected by climate change viewed drought as the most concerning impact of it.

What is the Status of Freshwater Shortage in India?

- **About:**
 - India's freshwater crisis is constant. Although India has **16% of the world's population**, the country possesses only **4% of the world's freshwater resources**.
 - According to [NITI Aayog](#), a large number of Indians face high to extreme water stress.
 - **North India, the most populated belt of the nation** is going to face grievous **irreversible fresh water scarcity by 2060** since the availability of the vital resource will decline on account of **climate change**.
- **Issues:**
 - **Rising Water Pollution:** There is a large amount of **domestic, industrial, and mining waste** that is **discharged into water bodies**, which can lead to waterborne illnesses.
 - Moreover, [water pollution](#) can lead to [eutrophication](#), which can significantly impact aquatic ecosystems.
 - **Overexploitation of Groundwater:** **256 of 700 districts** in India have reported critical or overexploited groundwater levels, according to the **Central Ground Water Board (2017)**.
 - **Wells, ponds and tanks are drying up as groundwater resources** come under increasing pressure due to over-reliance and unsustainable consumption. This has **escalated the water crisis**.

- **Potential Rural-Urban Conflict:** Cities are rapidly **expanding as a result of rapid urbanisation**, and a large influx of migrants from rural areas has increased the per capita use of **water in cities, which is causing water to be transferred from rural reservoirs to urban areas to meet the deficit.**
 - Considering the downward trend of water level in urban areas, it is likely that **cities will rely heavily on rural areas** for raw water supply in the future, which may spark the **rural-urban conflict.**

What are the Current Government Initiatives Related to Water Management?

- [National Water Policy, 2012](#)
- [Pradhan Mantri Krishi Sinchayee Yojana](#)
- [Jal Shakti Abhiyan- Catch the Rain Campaign](#)
- [Atal Bhujal Yojana](#)

Way Forward

- **Sustainable Groundwater Management:** There is a need to devise a proper mechanism and rural-urban integrated projects for **artificial recharge to groundwater** and rainwater harvesting at household level, conjunctive use of surface water and groundwater, and regulation of water reservoirs.
- **Water Conservation Zone:** There is a need to shift focus towards **efficient water governance** and increased data discipline regarding the status of water bodies at regional, state and national level, and setting up water conservation zones.
- **Leveraging Modern Water Management Techniques: Information Technology** can be linked with water-related data systems. Also, in recent years, breakthroughs in research and technology have made it possible to make **water that was considered unfit for consumption, clean and safe for consumption.**
 - Some of the most frequently used techniques include [Electrodialysis Reversal \(EDR\)](#), [Desalinization](#), Nanofiltration, and Solar and UV Filtration.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q.1 Which one of the following ancient towns is well known for its elaborate system of water harvesting and management by building a series of dams and channelizing water into connected reservoirs? (2021)

- (a) Dholavira
- (b) Kalibangan
- (c) Rakhigarhi
- (d) Ropar

Ans: (a)

Q.2 With reference to 'Water Credit', consider the following statements: (2021)

1. It puts microfinance tools to work in the water and sanitation sector.
2. It is a global initiative launched under the aegis of the World Health Organization and the World Bank.
3. It aims to enable the poor people to meet their water needs without depending on subsidies.

Which of the statements given above are correct?

- (a) 1 and 2 only

- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (c)

Mains

Q.1 What are the salient features of the Jal Shakti Abhiyan launched by the Government of India for water conservation and water security? **(2020)**

Q.2 Suggest measures to improve water storage and irrigation system to make its judicious use under the depleting scenario. **(2020)**

[Source: DTE](#)

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