India Water Week 2024

For Prelims: Ministry of Jal Shakti, 8th India Water Week 2024, water resource management, World Water Council, World Bank, Asian Development Bank, water conservation, National Water Policy, 2012, Pradhan Mantri Krishi Sinchayee Yojana, Jal Shakti Abhiyan- Catch the Rain Campaign, Atal Bhujal Yojana, Jal Jeevan Mission (JJM), National Mission for Clean Ganga (NMCG).

For Mains: Challenges and Measures for water resource management in India.

Source: PIB

Why in News?

Recently, **the President of India** inaugurated the **8th India Water Week (IWW) 2024** in New Delhi, under the aegis of **the Ministry of Jal Shakti**.

- This prestigious international forum has gained **significance as a key platform for discussions and collaboration on water resource management**.

What is India Water Week 2024?

- **Aim:**
  - It aimed to **address critical challenges pertaining to water management** and fostering innovation in water-related technologies and practices.
    - Since its inception in 2012, IWW has evolved into a crucial platform in **global water diplomacy, facilitating dialogue, innovation, and knowledge exchange on critical water-related challenges.**
- **Theme:**
  - The theme of IWW 2024, **'Partnerships and Cooperation for Inclusive Water Development and Management'** highlighted the pivotal role of collaborative efforts across sectors and nations in tackling the escalating water challenges of the 21st century.
  - It emphasized the need for integrated and holistic approaches to **water conservation, efficient management, and the equitable distribution of water resources.**
  - The theme also underscored the critical importance of **international cooperation and multi-stakeholder partnerships** in ensuring sustainable water development and addressing global water security concerns.
- **Participants:**
  - Nations like **Denmark, Israel, Australia, and Singapore** presented their water-related innovations and experiences.
    - **China and Bangladesh did not participate** in the International Water Week events in India.
  - Representatives of the **World Water Council, World Bank and Asian Development Bank** were also present.

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- **International WASH Conference:**
  - **About:**
    - A key highlight of IWW 2024 was the **International Water, Sanitation, and Hygiene (WASH) Conference**, organised by the **Department of Drinking Water and Sanitation (DDWS)** under the Ministry of Jal Shakti.
  - **Aim:**
    - The conference focused on fostering **global cooperation in WASH** to address critical sanitation challenges and promote hygiene standards.
  - **Theme:**
    - It was centered around the theme, **'Sustaining Rural Water Supply'** providing a platform for knowledge exchange, showcasing innovations, and sharing best practices to tackle global WASH issues, with a particular emphasis on achieving **Sustainable Development Goal (SDG) 6**.
  - **Outcome:**
    - The Conference culminated in significant outcomes, highlighting **India's leadership in rural water management** through initiatives like the **JJM and Swachh Bharat Mission.**
    - It emphasized the critical importance of global partnerships, community-driven solutions, and technology-based innovations to address future water and sanitation challenges.
- **Highlighted Initiatives:**
  - **Catch the Rain campaign (2021)**, advocated for a nationwide, people-centric movement to confront the ongoing water crisis effectively.
  - **National Safe Water Dialogue** focused on the impact of **Jal Jeevan Mission (JJM)**, discussing topics like water disinfection, community engagement, and impact assessment of JJM.

What is the Current State of Water in India?

- **Water Scarcity:** As of 2024, India has **18% of the world's population but only 4% of its freshwater resources**, making it one of the most water-stressed countries globally .
- **Groundwater Depletion:** Groundwater is crucial for 80% of drinking water and two-thirds of irrigation needs.
    - However, **over-extraction has led to severe depletion,** particularly in agricultural states like Punjab, where the water table is falling drastically .
- **Water Pollution:** Around **70% of India's water is contaminated,** with nearly half of the country's rivers unsafe for drinking or irrigation.
    - This makes **India rank 120th out of 122 countries on a Global Water Quality Index 2024.**
- **Rural Water Access:** About **163 million Indians lack access to safe drinking water,** and 600 million face high-to-extreme water stress. Many rural areas still rely on unsafe sources .
- **Climate Vulnerability:** Climate change has exacerbated droughts and floods in India, further impacting water availability. **It is projected that by 2030**, India's water supply may only meet half of its demand.

What are the Factors Related to the Water Crisis in India?

- **Rapid Population Growth and Urbanisation:** The rising population and accelerating urbanisation have led to increased demand for water, placing immense pressure on existing water resources and infrastructure.
- **Depleting Groundwater Reserves:** Over-extraction of groundwater, particularly for agricultural use, has resulted in **alarming rates of groundwater depletion**, especially in states like Punjab, Haryana, and Rajasthan.
- **Inefficient Agricultural Practices:** Agriculture, which consumes around 80% of India's freshwater, is heavily dependent on **water-intensive crops and inefficient irrigation techniques**, leading to unsustainable water use.
- **Pollution of Water Bodies:** Industrial waste, untreated sewage, and agricultural runoff have severely **polluted rivers, lakes, and groundwater**, further reducing the availability of safe and potable water.
- **Climate Change:** Erratic rainfall patterns, increasing frequency of **droughts**, and changing monsoon cycles due to **climate change have disrupted water availability**, exacerbating the crisis in drought-prone and semi-arid regions.
- **Unequal Distribution and Access:** Regional imbalances in water availability, with some areas facing acute shortages while others have an abundance of resources, have resulted in unequal access, particularly in rural and marginalised communities.
- **Aging Infrastructure and Poor Water Management:** The lack of modern water management systems, combined with aging and **inadequate infrastructure for water storage, distribution, and treatment**, has led to inefficiencies and wastage.
- **Over-reliance on Monsoons:** India's heavy reliance on monsoon rainfall for water replenishment makes the country vulnerable to monsoon variability, which impacts both agricultural production and water availability.
- **Weak Governance and Policy Implementation:** Inconsistent and fragmented water policies, coupled with **poor governance and weak enforcement of regulations**, have hindered effective water management and conservation efforts.

What are the Government Initiatives Related to Water Management in India?

- **National Water Policy, 2012**
- **Pradhan Mantri Krishi Sinchayee Yojana**
- **Jal Shakti Abhiyan- Catch the Rain Campaign**
- **Atal Bhujal Yojana**
- **Jal Jeevan Mission (JJM)**
- **National Mission for Clean Ganga (NMCG)**

Way Forward

- **Integrated Water Resource Management (IWRM):** A holistic and coordinated framework for managing water resources across sectors and regions is essential. This would include ensuring efficient use of surface and groundwater, along with maintaining the ecological integrity of water bodies.
- **Promotion of Water-Efficient Agricultural Practices:** Shifting towards water-efficient crops, promoting micro-irrigation systems like drip and sprinkler irrigation, and encouraging the adoption of **sustainable agricultural practices** will reduce water consumption in agriculture.
- **Strengthening Groundwater Regulation and Recharge Mechanisms:** Strengthening regulatory frameworks to curb over-extraction of groundwater, while enhancing community-led initiatives for **groundwater recharge, rainwater harvesting, and watershed management**, is crucial to arrest groundwater depletion.
- **Revitalization of Water Bodies:** Restoring and **rejuvenating traditional water bodies such as ponds, lakes, and wetlands** will help in water retention, flood control, and groundwater recharge. This should be complemented by stringent measures to prevent pollution of rivers and aquifers.
- **Climate-Resilient Infrastructure and Planning:** Developing climate-resilient water infrastructure that can withstand extreme weather events such as **droughts and floods,** along with incorporating water resource planning into urban and rural development, will strengthen India's ability to manage water challenges under changing climatic conditions.
- **Effective Policy Implementation and Institutional Strengthening:** Strengthening governance at the national and state levels through better **coordination between institutions, timely policy interventions, and robust regulatory frameworks** is essential.
- **Fostering International and Regional Cooperation:** Given the transboundary nature of many water bodies, India should actively engage in **regional and international cooperation on shared water resources.**

Drishti Mains Question:

Discuss the significance of International Water Week as a platform for global collaboration in water resource management. How can such international events contribute to addressing the pressing challenges of water scarcity?

UPSC Civil Services Examination, Previous Year Question (PYQ)

Mains

Q. What is water stress? How and why does it differ regionally in India? **(2019)**

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