



## World Water Day, 2024

This editorial is based on [“Water, an instrument to build world peace”](#) which was published in The Hindu on 22/03/2024. The article delves into World Water Day 2024, exploring the importance of enhanced water security, sustainable agricultural practices, and environmental preservation.

**For Prelims:** [World Water Week](#), [Jal Jeevan Mission](#), [Accelerated Rural Water Supply Scheme](#), [Panchayati Raj Institutions](#), [Har Ghar Jal program](#), [Central Pollution Control Board](#), [United Nations](#), [SDGs](#), **Water conference**, [Jal Kranti Abhiyan](#), [National Water Mission](#), [National Rural Drinking Water Programme](#), [NITI Aayog Composite Water Management Index](#), [Jal Shakti Abhiyan](#), [Atal Bhujal Yojana](#).

**For Mains:** Issues of Global Water Scarcity, Steps Taken to Address the Challenges.

[World Water Day](#), which falls on March 22, is a global initiative backed by the [United Nations](#), and has been observed every year since 1993. Under different themes, the attempt has been to raise awareness among stakeholders about the importance of freshwater. As everyone knows, there was a time when clean water was available in wells, ponds, streams, rivers and other sources, but the situation is vastly different now. There is a problem of water availability with respect to quantity or quality, which manifests itself in the form of water scarcity or crisis.

Throughout history, water has been a pivotal resource for some of the greatest civilisations such as those that arose around the Indus, the Nile, the Tigris and the Euphrates. But it is also true that in these civilisations, conflicts arose on account of this resource, like the well documented tensions between the Mesopotamian cities of Lagash and Umma. This conflict, one of the oldest known wars in human history, centered around a fertile piece of land and water resources.

### Note

- March 22, 2024, is the 31st World Water Day, with the theme, “Leveraging water for peace”. Under the ‘World Water Assessment Programme’, [UNESCO](#) led the development of the 2024 edition of the flagship [United Nations World Water Development Report](#), “Water for Prosperity and Peace” as a part of [UN Water](#) (an interagency coordination mechanism on water and sanitation of 35 UN entities along with 48 other international partners).

### What is World Water Day?

- **Aim:** The Day aims to support the achievement of [Sustainable Development Goal 6](#): water and sanitation for all by 2030.

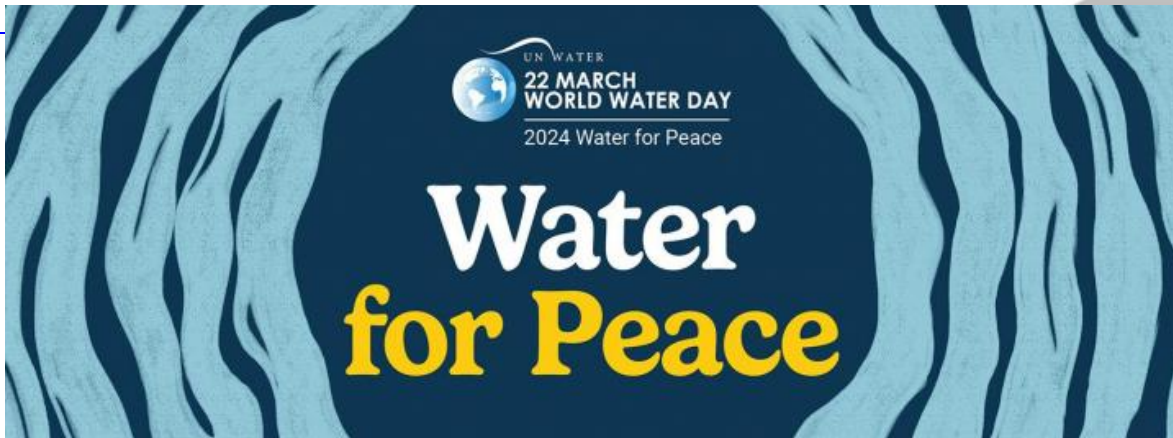
▪ **Theme:** The theme for 2024 is “**Water for Peace**”

▪ **History:**

- The idea for this international day goes back to 1992, the year in which the UN Conference on Environment and Development in Rio de Janeiro took place.
- That same year, the United Nations General Assembly adopted a resolution by which 22nd March of each year was declared World Day for Water, to be observed starting in 1993.
- Later on, other celebrations and events were added. For instance, the International Year of Cooperation in the Water Sphere 2013, and the current International Decade for Action on Water for Sustainable Development, 2018-2028.

▪ **Significance:**

- The day's intention is to inspire people around the world to learn more about water-related issues and to take action to make a difference.
- While water covers almost 70% of the planet, freshwater only amounts to about 3% of it, out of which two-thirds is frozen or inaccessible and unavailable for use.
- These observances serve to reaffirm that water and sanitation measures are key to poverty reduction, economic growth, and environmental sustainability.



**Other Important Days :**

- 22 April: [Earth Day](#)
- 22 May: [World Biodiversity Day](#)

**What are the Different Aspects of Water Crisis Witnessed in India?**

▪ **Multidimensional Connotation of Water Crisis:**

- The water crisis can be classified as either physical or economic, stemming from a variety of factors including rapid urbanization, industrialization, unsustainable agricultural methods, climate change, unpredictable rainfall patterns, excessive water consumption.
- Apart from those, inefficient water management, pollution, insufficient infrastructure, a lack of stakeholder engagement, and runoff exacerbated by heavy rainfall, soil erosion, and sediment buildup also play significant role. Water scarcity disrupts ecosystem functions, jeopardizes food and water security, and ultimately impacts peace.

▪ **Issues of Water Stress:**

- According to the World Resources Institute, 17 countries face ‘extremely high’ levels of water stress which is threatening to result in conflict, unrest and peace among people. India is not an exception to these problems.
  - In India, water availability is already low enough to be categorised as water stressed, and is expected to reduce further to 1341m<sup>3</sup> by 2025 and 1140m<sup>3</sup> by 2050. Also, 72% of all water withdrawals are for use in agriculture, 16% by municipalities for households and services, and 12% by industries.

▪ **Groundwater Table Depletion:**

- In almost every State and in the main cities of India, there is groundwater table depletion. The example of Bengaluru is one prominent example. In Punjab, Rajasthan, Delhi and Haryana, the ratio of groundwater consumption to availability is 172%, 137%, 137% and 133%, respectively, which is cause for alarm.
  - In contrast, in Tamil Nadu, Uttar Pradesh, Gujarat, Madhya Pradesh and Maharashtra, it is 77%, 74%, 67%, 57%, and 53%, respectively. Most perennial rivers/streams now have intermittent flows or have run dry. In most areas after April-May, there is Less water availability even for drinking and other uses.
- **Silting of Reservoirs and Wetlands:**
  - Springs in India's hilly areas are almost dry. In India, the total number of water bodies is 5,56,601 whose irrigation potential covered 62,71,180 hectares. But, due to a lack of or inappropriate catchment treatment measures, bad design and poor maintenance of water bodies, most of the reservoirs/waterbodies/wetlands have silted up, resulting in reduced storage capacity and lower efficacy.
- **Mismanagement of Water as a Resource:**
  - In most areas, tubewell density and networks have increased. Groundwater discharge is now more than groundwater recharge. The letting out of sewerage water and other sources of grey water into water bodies and rivers is causing a deterioration in water quality.
    - There is a lack of proper surface and groundwater management. Rainfed regions in India which comprise over 48% of land area produces nearly 45% of the gross agricultural product.
- **Lack of Streamlined Approach Across Domestic and Agricultural Domains:**
  - The government's emphasis on '[Per Drop More Crop](#)', 'Gaon ka pani gaon mein', 'Khet ka pani khet mein', 'Har Medh per ped' under various programmes such as the [Pradhan Mantri Krishi Sinchayee Yojana \(PMKSY\)](#), watershed management, [Mission Amrit Sarovar](#) and the [Jal Shakti Abhiyan](#), etc adopts a siloed approach vis-a-vis domestic and agricultural uses.
    - In this scenario, it is mandated to adopt a comprehensive and synchronized localist interventions tailored to the needs of different regions and States that provides equal emphasis on all aspects of water usage and conservation.
- **Experiencing Meteorological Extremities:**
  - Today, the world is also experiencing countless meteorological extremities: from intense heat waves to turbulent floods, magnifying concerns about the climate crisis as well as its continuing implications over water insecurity.
    - For example, here in India, the monsoon has become erratic over the years and brings with it major uncertainties for agriculture, which lies at the heart of India's USD 3 trillion economy.
- **Prevalent Issues in Water Discrimination:**
  - Age and Gender are the foremost reason for discrimination when it comes to accessing clean water. Women and Children are the worst affected population. In fact, children are more vulnerable to diseases due to dirty water.
  - Other reasons for water discrimination include race, ethnicity, religion, birth, caste, language and nationality. Certain people are particularly disadvantaged due to disability, age, health and economic and social status.
    - Environmental degradation, climate change, population growth, conflict, forced displacement and migration are also some reasons due to which marginalized groups of society suffer.
- **Continuous Encroachment on Catchment Areas:**
  - Small water bodies such as lakes, ponds, and streams are under constant threat due to encroachment on their catchment areas. As urbanization expands, people are building houses, commercial buildings, and other infrastructure in and around the catchment areas of these water bodies.
    - The urban agglomeration witnessed from the 1990s has severely impacted SWBs, turning many of them into dumping grounds. The Standing Committee on Water Resources (2012-13) underlined in its 16th report that most of the water bodies in the country were encroached upon by State agencies themselves.

## What are the Different Steps Required for Mitigating the Water Crisis?

- **Adopting Judicious Mix of Traditional and New Technologies:**
  - A large amount of India's food grains is from the rainfed region. The Government lays stress on having a judicious mix of 'traditional indigenous and new technologies to improve soil health and conserve water' and pitched for the efficient use of every drop of water. Hence, paying attention to these points is important.
- **Emphasizing Both, Quality and Quantity:**
  - Enhancing water availability with respect to quantity and quality and blue and green water is vital since water is more than just a basic human right. Water is also an instrument of peace-building and enhances the overall quality of life. Promoting sustainable agricultural production, ensuring water security and maintaining environmental integrity are increasingly becoming important issues.
- **Adopting Different Resource Conservation Measures:**
  - Water Crisis mitigation can be made possible by **adopting different resource conservation measures in general and rainwater harvesting (in-situ and ex-situ)** and ensuring roof top rainwater harvesting in particular.
  - **Rain water harvesting (RWH) enables resilience** against water scarcity and drought by augmenting recharge and aiding irrigation. The optimum use of surface water by large-scale RWH structures, conjunctive use with groundwater And safe reuse of waste water are the only viable solutions to boost and maintain the current level of food grain production.
- **Need for a Protocol for Revival of Water Bodies:**
  - There is the need for a protocol of the revival of ponds/waterbodies. To tackle all these problems there is a great need to study the condition of every waterbody, its water availability, water quality and the state of ecosystem services it supports. There is a need also to create more waterbodies and their revival in every village by looking into the catchment-storage-command area of each waterbody.
- **Fostering Collaborative Governance Across Nations:**
  - Within the added climate change-related pressures it faces, the world needs to foster improved cooperation over water-sharing and embrace universal principles for International Water Law. By governing the use of shared waters and encouraging the use of water sustainably, world can strive for better water diplomacy - making water a force for peace.
    - The shared recognition that water is a vital resource, with limitations in quality and availability, necessitates collaborative governance to ensure effective and equitable water allocation among nations, fostering regional stability and peace, and an understanding of the intricate relationships between water, climate, and international stability.
- **Adopting Inclusive Approaches:**
  - Water diplomacy also requires inclusive approaches, acknowledging the indigenous and local communities' extensive cross-border networks, as well as involving civil society and academic networks, who can also play an important role in facilitating political processes to prevent, mitigate, and resolve water-related disputes.
- **Addressing Rural Issues and Promoting Investments:**
  - Within India, a total of 70% of the rural population relies on water to run their households, where agriculture remains the principal source of livelihood. This is even more striking as we know that agriculture also accounts for 70% of the total freshwater use, globally.
    - With improved water accessibility, these differences can be erased, and increased water investments in the rural areas have the potential for returning positive outcomes - in health, education and employment, not to mention basic human needs and dignity.
- **Promoting Technological Integration with Agrarian Sector:**
  - In the agrarian sector, the efficient use of emerging **artificial intelligence (AI)** technology in the conservation of water, ranging from tackling crop and food loss, to minimising chemicals and fertilizers, and saving water, is starting to show that outputs that are both productive and sustainable can be enabled.
- **Resolving Issues of Transboundary Rivers:**
  - A "large proportion of the world's freshwater resources are in transboundary waters" including in India. With its expansive landmass, India boasts a network of long rivers, not only serving its own needs but also shared with its neighbours.
    - And, yet, in the South Asian region, the extent of water pollution has worsened considerably in recent years, especially the Meghna, Brahmaputra, Ganga and

Indus.

- To solve these problems, the world needs a sophisticated form of cross-border water governance, promoting effective and equitable water allocation among nations that share water resources.

▪ **Maintaining Small Water Bodies:**

- India has a vast network of small water bodies like ponds, lakes, and tanks, which play a vital role in recharging groundwater and providing water for irrigation. The 5th Minor Irrigation Census mentions that India has a total of 6.42 lakh small water bodies. Due to lack of proper maintenance, their storage capacity has been declining.
- As a result, the irrigated area of tanks has declined sharply from 45.61 lakh hectares in 1960-61 to 16.68 lakh hectares in 2019-20. By restoring and maintaining these small water bodies, India can help conserve water and improve the availability of water in nearby communities.

▪ **Adopting Multi-Dimensional Interventions:**

- With these following solutions, the theme of World Water Day 2024 can be strengthened and India can become water secure. **These are also steps to ensure a more peaceful world as per UN Water Development Report, 2024:**
  - The pricing of water use;
  - Having a circular water economy;
  - Ensuring efficient irrigation techniques such as integrating water resources with micro-irrigations systems and IOT based automation; having integrated water resource management;
  - Installing water meters to reduce water use for domestic purposes;
  - No free electricity, having a convergence and linkages of line departments;
  - Fostering community awareness and peoples' participation, awareness campaigns about water conservation;
  - Ensuring groundwater use neutrality;
  - Land neutrality, growing low water requirement crops;
  - Optimal crop plan having integrated farming system models;
  - Building resilience against climate change and ensuring the needs of a growing population by adopting an integrated and inclusive approach to manage water which is a finite resource;
  - Reducing losses from water distribution systems, and ensuring safe wastewater reuse, desalination and appropriate water allocation, tubewell/borewell development;
  - Enabling the integration and collaboration of research, industry and academia to implement different developed and new technologies.

## What Are the Different Initiatives to Promote Water Conservation?

▪ **U.N. Initiatives to Save Water:**

- The United Nations Water Conference (1977), the International Drinking Water Supply and Sanitation Decade (1981-1990), the International Conference on Water and the Environment (1992) and the Earth Summit (1992) - all focused on the vital resource, Water.
- The 'Water for Life' International Decade for Action 2005-2015 helped around 1.3 billion people in developing countries gain access to safe drinking water and drove progress on sanitation as part of the effort to meet the Millennium Development Goals.
- The most recent initiative is the 2030 Agenda for Sustainable Development that aims to ensure availability and sustainable management of water for all by the year 2030.

▪ **Indian Initiatives:**

- [Swachh Bharat Mission](#)
- [Jal Jeevan Mission](#)
- [Jal Kranti Abhiyan.](#)
- [National Water Mission.](#)
- [National Rural Drinking Water Programme.](#)
- [NITI Aayog Composite Water Management Index.](#)
- [Jal Shakti Abhiyan.](#)
- [Atal Bhujal Yojana](#)
- [National Water Policy, 2012](#)

- [Pradhan Mantri Krishi Sinchayee Yojana](#)
- [Atal Bhujal Yojana](#)
- [Per Drop More Crop](#)

## Conclusion

Since time immemorial, world has made significant progress in fostering peace; however, if freshwater runs scarce, it threatens our collective well-being and peace. This is also crucial for the 2030 Agenda and achieving the SDGs. Through transboundary cooperation and other interventions on the sustainable management of water, world can realise benefits across various sectors including health, food and energy security, protection from natural disasters, education, improved living standards, employment, economic development, and numerous ecosystem services.

### **Drishti Mains Question:**

Discuss the significance of World Water Day in raising awareness about water-related issues. How can individuals contribute to water conservation efforts?

## UPSC Civil Services Examination, Previous Year Question (PYQ)

### **Prelims**

**Q. 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 Organisation 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**

**Q1.** What are the salient features of the Jal Shakti Abhiyan launched by the Government of India for water conservation and water security? **(2020)**

**Q2.** Suggest measures to improve water storage and irrigation system to make its judicious use under the depleting scenario. **(2020)**