



JALDOOT App

For Prelims: JALDOOT App, Ground Water Depletion, Initiatives related to Water Depletion.

For Mains: JALDOOT App, Issues of Groundwater depletion and Solution.

Why in News?

Recently, the Ministry of Rural Development has launched the “JALDOOT App and JALDOOT App e-brochure” to capture the **Ground water level in a better way.**

What is a JALDOOT App?

▪ About:

- JALDOOT app has been jointly developed by the Ministry of Rural Development and [Panchayati Raj](#).
- This app will be used across the country to capture the water level of **selected 2-3 wells in a village.**
- The app will work **in both online and offline mode.** So, water level can be captured even **without internet connectivity and captured data will be stored in mobile** and when mobile comes in the connectivity area, data will synchronize with the central server.
- The regular data to be input by the Jaldoots would be integrated with the database of **National Water Informatics Centre (NWIC)**, which can be utilized for analysis and display of various useful reports for the benefit of various stakeholders.

▪ Significance:

- This app will facilitate **observing water tables across the country** and the resulting **data can be utilized for Gram Panchayat Development Plan** and [Mahatma Gandhi NREGA](#) Plans.
- The app is launched to capture the water level of selected wells in a village across the country.
- JALDOOT app will allow **Gram Rojgar Sahyak to measure** the water level of the well twice a year pre-monsoon and post-monsoon.
- The app will **ease panchayats with robust information that** can be later used for better planning of works.

What is the Status of Groundwater Depletion in India?

▪ Status of Groundwater Depletion:

- According to the [Central Ground Water Board \(CGWB\)](#), with 230 billion metre cubes of groundwater drawn out each year for irrigating agriculture lands in India, **many parts of the country are experiencing rapid depletion of groundwater.**
- The total estimated groundwater depletion in India is **in the range of 122-199-billion-meter cubes.**
- 89% of groundwater extracted is **used in the irrigation sector**, making it the highest category user in the country.

- This is followed by groundwater for domestic use which is 9% of the extracted groundwater. Industrial use of groundwater is 2%. 50% of urban water requirements and 85% of rural domestic water requirements are also fulfilled by ground water.

▪ **Causes:**

◦ **Green Revolution:**

- The Green Revolution **enabled water-intensive crops to be grown in drought-prone/ water deficit regions**, leading to over extraction of groundwater.
- Frequent pumping of water from the ground without waiting for its replenishment leads to quick depletion.
- Further, Subsidies on electricity and high **MSP (Minimum Support Price)** for water intensive crops.

◦ **Industries Requirement:**

- Water contamination as in the case of pollution by landfills, septic tanks, leaky underground gas tanks, and from overuse of fertilizers and pesticides **leads to damage and depletion of groundwater resources.**

◦ **Inadequate Regulation:**

- Inadequate regulation of groundwater **encourages the exhaustion of groundwater resources** without any penalty.

◦ **Federal Issue:**

- Water being a **state subject**, initiatives on water management including water conservation and water harvesting and making available adequate drinkable water to citizens in the **Country is primarily the States' responsibility.**

What are the Related Initiatives?

- [Atal Bhujal Yojana \(Atal Jal\)](#)
- [Jal Shakti Abhiyan \(JSA\)](#)
- [Aquifer Mapping and Management Programme](#)
- [Atal Mission for Rejuvenation and Urban Transformation \(AMRUT\)](#)
- [Pradhan Mantri Krishi Sinchayee Yojana - Watershed Development Component](#)
- [Mission Kakatiya' in Telangana](#)

Way Forward

- **Artificial Recharge of Groundwater:** It is the process of spreading or impounding water on the land to increase the infiltration through the soil and percolation to the aquifer or of injecting water by wells directly into the aquifer.
- **Groundwater Management Plants:** Installing groundwater management plants at local levels will help the people know the groundwater availability in their area, making them use it wisely.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q. Consider the following statements: (2020)

1. 36% of India's districts are classified as "overexploited" or "critical" by the Central Ground Water Authority (CGWA).
2. CGWA was formed under the Environment (Protection) Act.
3. India has the largest area under groundwater irrigation in the world.

Which of the statements given above is/are correct.

- (a) 1 only
(b) 2 and 3 only

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

Ans: (b)

Exp:

- Based on groundwater levels, areas across the country are split into three categories: **Over-exploited, Critical, and Semi-critical**. The first refers to groundwater being extracted more than what's recharged i.e., extraction is more than 100%. Critical where the groundwater taken out is 90-100% of what's recharged and semi-critical where extraction rate is 70%-90%.
- As per the report 'National Compilation on Dynamic Groundwater Resources of India, 2017' of CGWA, out of the total 6881 assessment units (Blocks/ Mandals/Talukas) in the country, 1186 units in various States (17%) have been categorized as 'Over- Exploited', 313 units (5%) are 'Critical', and 972 are semi-critical units (14%). **Hence, statement 1 is not correct.**
- Note: As per National Compilation on Dynamic Groundwater Resources of India 2020; Out of the total 6965 assessment units (Blocks/ Mandals/ Talukas/ Firkas) in the country, 16 % have been categorized as 'Over-exploited, 4 % as Critical, 15 % as Semi-critical and 64 %) as 'Safe' units. Apart from these, there are 97 (1%) assessment units, which have been categorised as 'Saline'.
- The Central Ground Water Authority (CGWA) was constituted under Section 3(3) of the Environment (Protection) Act, 1986 to regulate, control development and management of ground water resources. **Hence, statement 2 is correct.**
- As per report of Food and Agriculture Organization (FAO) of UN, the countries with the largest extent of areas equipped for irrigation with groundwater, in absolute terms, are India (39 million ha), China (19 million ha) and the USA (17 million ha). **Hence, statement 3 is correct.**
- **Therefore, option (b) is the correct answer.**

Mains

Q. "The ideal solution of depleting ground water resources in India is water harvesting system". How can it be made effective in urban areas? **(2018)**

Q. India is well endowed with fresh water resources. Critically examine why it still suffers from water scarcity. **(2015)**

Source: PIB

PDF Refernece URL: <https://www.drishtias.com/printpdf/jaldoot-app>